S. HRG. 98-1217

CONSTRUCT, OPERATE AND MAINTAIN THE SEWARD PROJECT, OKLAHOMA

HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

SECOND SESSION

ON

S. 2098

A BILL TO AUTHORIZE THE SECRETARY OF THE INTERIOR TO CONSTRUCT, OPERATE, AND MAINTAIN THE SEWARD PROJECT, OKLAHOMA, AND FOR OTHER PURPOSES

GUTHRIE, OK, JANUARY 10, 1984

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CONSTRUCT, OPERATE AND MAINTAIN THE SEWARD PROJECT, OKLAHOMA

TUESDAY, JANUARY 10, 1984

U.S. SENATE,
SUBCOMMITTEE ON WATER AND POWER,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Guthrie, OK.

The subcommittee met, pursuant to notice, at 10 a.m. in the American Legion Hall, Guthrie, OK, Hon. Don Nickles, presiding.

Present: Senator Nickles.

Also present: Russell R. Brown, professional staff member; and Craig Gannett, counsel for the minority.

OPENING STATEMENT OF HON. DON NICKLES, A U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator NICKLES. Good morning. I want to thank you for attending today's hearing on the proposed Seward project on Cottonwood Creek. We have a number of witnesses scheduled to testify, and I will open the hearing later to anyone else who would like to speak before this subcommittee on this matter.

We want to hear from everyone who has an interest in this project. In addition, the official hearing record will remain open another 2 weeks for additional written comments.

Let me say at the outset that the Seward Reservoir project has a long history of development. The purpose of this hearing is to examine where the development stands, hear the pros and cons, and decide whether to continue additional detailed studies which would allow us to make the final decision on the future of the project. While this project could provide significant benefits for north central Oklahoma, I do have some reservations about it.

I view this as a time of opportunity. If we are to move ahead as a community of the future, then we are going to have to think ahead to solve our problems. But, we must work together if our children, and their children, are to benefit from the decisions we make today.

I know that many people have put an enormous amount of time and effort into developing the Seward project, and I'll briefly describe the project's history.

In December 1974, the U.S. Department of the Interior's Bureau of Reclamation completed and published an appraisal level report on the Seward project. An appraisal level report is made on a proposed project in order to advise the Congress if legislation authorizing a detailed feasibility investigation is justified.

Based upon the 1974 report, a feasibility level study of the Seward project was authorized by the Congress in Public Law 94-156, which was signed into law December 16, 1975. It is my understanding that the feasibility report is nearing completion at the regional level, and the preliminary results are very encouraging.

In light of these studies conducted by the Bureau of Reclamation, and the endorsement of the project by the Oklahoma Water Resources Board, I introduced legislation to authorized the Secretary of the Interior to construct, operate, and maintain the Seward project in Oklahoma.

The project would consist of a dam and reservoir on Cottonwood Creek, a tributary of the Cimarron River in Logan County, approximately 20 miles north of Oklahoma City. Major project features would include the dam and reservoir, pipelines, pumping plants, water treatment works, and outdoor recreation facilities.

The project would provide a dependable municipal and industrial water supply to help meet the projected needs of central Oklahoma, and some flood reduction in the Guthrie area. While the Corps of Engineers has concluded in earlier studies that flood control is not economical at this time, the legislation which I have sponsored would authorize flood control as part of the project.

It is also my understanding that the Oklahoma Water Resources Board has already expressed an interest in contributing toward the costs of flood control. The Seward project is included in the Oklahoma Comprehensive Water Plan of 1980 as a key feature for meeting the future demands for municipal and industrial water supplies in central Oklahoma.

In addition to the Oklahoma Water Resources Board's support, the Bureau has received resolutions from the cities of Guthrie, Edmond, and Oklahoma City in support of the project. Many other communities have indicated their interest in the project.

The bill authorizes the Secretary of the Interior to enter into an agreement with a non-Federal entity for a contribution toward implementation of the act. This is in keeping with the Energy and Natural Resources Committee's policy of establishing cost-sharing requirements on a project-by-project basis.

The Oklahoma Water Resources Board has already pledged to provide a contribution. Under current law, all construction costs for municipal and industrial water supplies are reimbursable to the Treasury with interest.

I would like to stress the importance of working together to address our water needs.

As chairman of this subcommittee, I will work with every interested party. Before we call the first witness, there are a few housekeeping measures that I would like to take care of. In the back of the room is a signup sheet for those who would like to receive a copy of today's hearing record.

Those who testify today will be asked to fill out a witness card and I would appreciate your returning the card to the staff—you will automatically receive a copy of the hearing record. In addition, the record will remain open for 2 weeks so that those who wish to submit written statements for the record may do so.

You can address your comments to me in room 713, Hart Building, Washington, DC 20510. Because of the many requests to testi-

fy, it is my hope that witnesses will summarize their statements so we may hear from as many people as possible.

We will take as much time as we have allotted to hear from as many people who have an interest in this hearing but also we will hold the record open if there are some additional comments that people wish to enter at a later date.

[The text of S. 2098 follows:]

II

98TH CONGRESS
1ST SESSION

S. 2098

To authorize the Secretary of the Interior to construct, operate, and maintain the Seward project, Oklahoma, and for other purposes.

IN THE SENATE OF THE UNITED STATES

NOVEMBER 15 (legislative day, NOVEMBER 14), 1983

Mr. NICKLES introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To authorize the Secretary of the Interior to construct, operate, and maintain the Seward project, Oklahoma, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior (hereinafter referred to as the Secretary) is authorized to construct, operate, and maintain the Seward project, Oklahoma, in accordance with the Federal Reclamation laws (Act of June 17, 1902, 32 Stat. 388, and Acts amendatory thereof or supplementary thereto), the provisions of this Act and the plan set out in the report of the Secretary on this project. The Secretary may make modification of, omissions from, or additions to the works for the

purposes of storing, regulating, and furnishing water for municipal and industrial use, conserving and developing fish and wildlife resources, providing outdoor recreation opportunities, and controlling floods. The principal features of the project shall consist of the Navina Dam and Reservoir on Cottonwood Creek, appurtenant conveyance facilities, pumping plants, water treatment works, and public outdoor recreation facilities.

SEC. 2. The interest rate used for computing interest during construction and interest on the unpaid balance of the reimbursable costs of the project shall be determined by the Secretary of the Treasury as of the beginning of the fiscal year in which construction of the project is commenced, on the basis of the computed average interest rate payable by the Treasury upon its outstanding marketable public obligations which are neither due nor callable for redemption for fifteen years from date of issue.

SEC. 3. (a) The Secretary is authorized to enter into a contract with a qualified entity or entities, for delivery of water and for repayment of all the reimbursable construction costs.

(b) Construction of the project shall not be commenced until a contract has been executed by the Secretary with a qualified entity or entities pursuant to subsection (a) of this section.

(c) Such contract may be entered into without regard to the last sentence of section 9(c) of the Reclamation Project Act of 1939.

(d) Upon execution of the contract referred to in subsection (a) of this section and upon completion of construction of the project, the Secretary shall transfer to a qualified contracting entity or entities the care, operation, and maintenance of the project works. After such transfer is made the Secretary shall reimburse or credit annually against the contractor's repayment obligation that portion of the year's joint operation and maintenance costs which, if the United States had continued to operate the project, would have been nonreimbursable. Prior to assuming care, operation, and maintenance of the project works the contracting entity or entities shall agree to operate them in accordance with regulations prescribed by the Secretary with respect to fish and wildlife and recreation and the Secretary of the Army with respect to flood control.

(e) Upon execution of the contract referred to in subsection (a) of this section, and upon completion of construction of the project, the contracting entity or entities, their designee or designees, shall have a permanent right to use the reservoir with said contract.

SEC. 4. The conservation and development of the fish and wildlife resources, and the enhancement of recreation op-

portunities in connection with the Seward project shall be in accordance with provisions of the Federal Water Project Recreation Act (79 Stat. 213).

SEC. 5. There is hereby authorized to be appropriated beginning October 1, 1984, for construction of the Seward project the sum of $270,000,000 (October 1984 price levels), plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by engineering cost indexes applicable to the type of construction involved herein. Prior to the appropriation of any funds, the Secretary shall enter into an agreement with a qualified non-Federal entity or entities providing for a contribution from such entity or entities toward implementation of this Act. Such contribution may consist in total or in part of funds, in kind services, lands or rights of way. The Secretary shall credit such contribution toward the reimbursable costs of the project. There are also authorized to be appropriated such sums as are necessary for the operation and maintenance of the project.

Senator NICKLES. Our first two panelists—and we'll group these where we can have three or four people at the table at one time, it will move this a little quicker. Our first panel, we have Mr. Andy Peck, who is from the Bureau of Reclamation. Mr. Peck, do you want to be first? Oh, Mr. Smith, you want to be first. Do you have anybody else that is going to be with you?

Mr. SMITH. No, sir.

Senator NICKLES. OK, Mr. Smith, please proceed.

Mr. SMITH. Thank you very much, Mr. Chairman. We have a brief video tape that we'd like to show right now, if we could, of the flooding problems that have occurred in the Cottonwood Creek area. This video tape was taken last October in the most recent flood, and at this time we'd like to run that, if possible.

Senator NICKLES. OK. This is a tape that was put together by the Oklahoma Water Resources Board?

Mr. SMITH. It is a combination of news reports put together for our agency from the TV stations in Oklahoma City.

[Video tape was shown.]

STATEMENT OF RICK SMITH, CHIEF OF PLANNING AND DEVELOPMENT, OKLAHOMA WATER RESOURCES BOARD

Mr. SMITH. My name is Rick Smith. I am chief of the planning and development division of the Oklahoma Water Resources Board and our agency is the State agency charged with managing and conserving and developing Oklahoma water resources.

It is my privilege today, along with Andy Peck from the Bureau of Reclamation, to provide this group a very brief history of the Seward project and to bring you up to date on its current status.

The material and information that we will provide will be helpful to set a foundation for the public hearing to be held, of course, by Senator Nickles. As many of you—or most of you know, the Seward project concerns the Cottonwood drainage basin, as shown here.

There has been a proposed dam site that has been identified, which is called the Navina Dam site, which is 2 miles southeast of Navina, about 20 miles north of Oklahoma City. This particular graph here shows a schematic of the reservoir.

I'll leave the specifics to Andy Peck, I would just indicate that the dam site is above the confluence of the Chisholm Creek and does take in the Deer Creek arm, and of course, the Cottonwood Creek area. A number of studies and investigations have been going on and the various purposes of those studies should be discussed.

Water supply is one of the foremost benefits and features of this particular project. Tremendous population and industrial growth in the Logan, OK, Kingfisher and Canadian Counties has created an increasing demand for water for this particular area.

Another particular purpose that must be addressed is flood control from this project. Significant flooding, as we've just seen, occurs in Cottonwood Creek basin very frequently. The water resources board is committed to adopting and getting a plan that is acceptable and suitable for flood control from this project.

Another particular purpose of the project is to determine its relationship to the Oklahoma comprehensive water plan. The Oklahoma comprehensive water plan was prepared by our agency and published in 1980 as a flexible guide for developing Oklahoma's water resources.

The Seward project was an integral part of developing the water supply for the central Oklahoma area. Previous studies have been undertaken and those should be reviewed for just a moment. About 35 years ago the Corps of Engineers started looking at the flood control problems in the Guthrie area and they looked at a way to alleviate those particular problems.

At that time they were only concerned with flood control and were not looking at any other project purposes. Those studies were terminated because of inadequate ability to get an effective flood control plan. In 1974—excuse me, 1975, the Bureau of Reclamation prepared an appraisal of a report, and between 1977 and 1980 conducted feasibility level supports to determine other project benefits and purposes.

Those studies resulted in a report that was preliminarily prepared in 1981. At that time those studies showed that water supply needs in the area were not sufficient to continue planning.

When that report was put out for review the water resources board and other communities in the area were very concerned about the recommendation and its conclusions from that report. As a result a meeting was held with potential water users, several cities, towns, and rural water districts, in 1981, to determine their interests in continued planning on the project.

As a result of that meeting several communities passed resolutions expressing no commitment for using the water supply, but just indicating that they wanted to support additional planning to determine whether the project should be continued. There was several factors that entered into that decision, I'd like to go through those briefly. First of all, is the tremendous population and commercial growth that has occurred, as I mentioned earlier. There has been a significant amount of development, both urban and rural, in northern Oklahoma and southern Logan Counties that has put increasing demand on existing water suppliers and created the need for additional water supply sources.

There have been a lot of 2½- and 5-acre tract developments in the area that have also increased the water demands. Another factor taken into consideration was the reservior droughts that we've experienced in Oklahoma, the most severe, of course, being in 1980. In 1980 there were 11 or 12 communities in this area that were experiencing severe water shortages because of inadequate supply or treatment or distribution, and, therefore, the recent drought has increased interest in this particular project.

Another concern has been ground water overdrafting, and the potential for saltwater intrusion into the Garber-Wellington Aquifer that many communities now drill out of. Another concern was the original study scope from the original study. Only Edmond and Guthrie were considered as potential water users, and the water resources board thought that we should look at a broader area to determine what the true water supply needs would be.

As a result of this, the State got with the Bureau of Reclamation and delineated certain tasks that should be prepared to identify some additional planning for the project. These tasks included, No. 1, additional stormwater sampling on Cottonwood Creek to determine what the water quality would be from the impounded reservoir.

Second, was actually forecasting future demands for water in the area, looking at a broader area. Third, was evaluating alternative sources of supply, both ground water and surface water, within the area and without the area.

Finally, we looked at distribution plans on where the water would be needed, and temporary or preliminary alignments as to how the water would be treated and distributed. As a result of those tasks, our agency has prepared a State report which will be submitted at a later time today.

That summarizes our findings and recommendations. Also, as a result of this report and community support, Senator Nickles has found the need to consider authorization for this project.

The Water Resources Board has been looking at this project now for a number of years and we consider it very important as a water supply need for this area—water supply source for this area.

Mr. Chairman, that concludes my portion of the presentation and now I'll turn it over to Andy Peck.

Senator NICKLES. Thank you. Mr. Peck. Mr. Peck, I might identify you, too. You two are guests today as the Oklahoma representatives for the Bureau of Reclamation.

STATEMENT OF ANDY PECK, OKLAHOMA REPRESENTATIVE, BUREAU OF RECLAMATION

Mr. PECK. Mr. Chairman, ladies and gentlemen, I have with me Steve MacIntosh, a hydrologist and water quality specialist from my office, and also Mr. Brooks Gallman, who is the project study coordinator for the Seward project, from our regional office in Amarillo, TX.

They are going to help me with the slide presentation that I have, and they'll also be available to help answer questions later if necessary. Mr. Gallman, incidentally, coordinated the studies, technical studies, in our regional office in Amarillo, as well as those that were done by consultants and other Federal and State agencies on the project.

Senator NICKLES. Before you go any further, can everyone hear? Will you try and pull your microphone up real close and let's try that.

Mr. PECK. Is that OK, I can generally talk louder.

Senator NICKLES. If you would it would help, especially the people back in the back, they're all being very quiet and I appreciate that. Maybe pull the microphone up and talk a little bit louder.

Mr. PECK. I'd like to make it clear at the outset, that we're not here to present testimony on behalf of the Department of Interior or the Department of Reclamation concerning their positions on the Seward project. We have no authority to present the Department's nor the Bureau's positions regarding Senate bill 2098.

We are only here to provide information and answer questions regarding the Seward project investigation to date. To briefly review those findings, we've put together a few slides that I'd like to show at this time. If we could, kill the lights again.

As you know Mr. Chairman, but some of the folks in our audience may not know, the Bureau of Reclamation is the Department of Interior agency responsible for the development and conservation of water resources in the 17 Western States.

The bureau's original purpose, to provide for the reclamation of arid and semi-arid lands in the West, today covers a wide range of interrelated functions. These include providing municipal industrial water supplies, hydroelectric power generation, irrigation water for agriculture, flood control, fish and wildlife enhancement, outdoor recreation and other water related activities.

Based on the findings of an appraisal report completed in 1975, reclamation was authorized, as we've already heard, to study Cottonwood Creek as a potential source of water to meet needs in the central Oklahoma area. Most of the work was accomplished between 1977 and 1980, some of the work was accomplished by other Federal and State agencies and by private consultants retained by reclamation.

Several public meetings, such as this one shown here held in Guthrie, were held to keep the public informed of the studies as they progressed. Cottonwood Creek drains an area of 380 square miles in Logan, Kingfisher, Canadian, and Oklahoma Counties in central Oklahoma, as outlined by the green line on this map, which is going to be a bit difficult to see under the lighting conditions that we have here.

It is also shown on the map back by the door if you want to look at it later in the hearing. It flows northeasterly for about 30 miles, bisecting the city of Guthrie and discharging into the Cimarron River just north of Guthrie; major tributaries are Deer Creek and Chisholm Creek.

During the appraisal investigation completed in 1975, we looked primarily at a known dam site on Cottonwood Creek, near the town of Seward, from which the proposed project got its name. Early in the investigation, however, we encountered two serious problems with locating a dam and reservoir at the Seward site.

The first problem was the location of advanced wastewater treatment plants then under construction on Deer Creek and Chisholm Creek because of the locations, treated sewage effluent from these plants would discharge just upstream from the reservoir.

The Oklahoma Department of Public Health advised us that discharging this effluent into a water suppy reservoir would not be acceptable. The second problem we ran into was the extensive rural residential development along Chisholm Creek, primarily between Western Avenue and Santa Fe Avenue on the west and east, and Waterloo Road and Seward Road on the north and south.

Numerous subdivisions were completed or under construction, with homes generally on 2- to 5-acre tracts. In 1978 our consultants found there were more than 100 homes in the Chisholm Creek area, ranging in value at that time between $150,000 and $350,000. The consultants also projected there would be more than 1,000 homes in that area by 1986.

Senator NICKLES. How many did you say there are now?

Mr. PECK. There were 100 in 1978 in that area, there were projected to be 1,000 by 1986, and I don't know how many there are now, but its been progressing. To solve the waste water treatment plant problems, and to reduce the impact and costs associated with the Chisholm Creek development, we looked for an alternate dam site.

We found one upstream of the Chisholm Creek effluents of Cottonwood Creek, we call it the Navina site, as it's located about 1½ miles southeast of the town of Navina. With the Chisholm Creek arm of the reservoir eliminated we can now pipe the effluent from Deer Creek wastewater plant over to Chisholm Creek where it will flow down Chisholm Creek together with the effluent from the Chisholm Creek plant into Cottonwood Creek below the dam.

At the same time we could also eliminate the severe impacts and high cost of purchasing right-of-way along Chisholm Creek. Navina Reservoir would cover an area of about 6,900 acres of normal water surface, and that's roughly the size of Lake Thunderbird.

At maximum water surface during high flood flows the reservoir would cover an area inside the proposed project boundaries shown of 8,600 acres, the land shown on this map includes 15,600 acres. Of the 15,600 acres, 1,300 acres, shown here in red, were designated for recreation areas, and 480 acres, shown in green, was proposed for wildlife management purposes.

However, since this map was prepared in 1980, rural development in this area has increased at a faster rate than our consultants projected in 1978. The location of new subdivisions and other recent developments will require substantial relocation of these proposed project boundaries, and particularly the proposed recreation areas.

In addition, land costs have undoubtedly increased as a result of the current development activities. That fact, together with recent changes in policy that direct reclamation to minimize the land that we purchased, will require additional studies to reduce the project land requirement substantially below the 15,600 acres shown on this map.

We propose to do that in three ways. First, relocate and reduce extra lands to be purchased for recreation and wildlife purposes wherever necessary. Second, redraw project boundary lines closer to the maximum water surface contour line. Third, take flood easements instead of purchasing land feet above the normal water surface wherever possible.

Flood easements would prohibit buildings and other permanent structures below the maximum water surface contour, but would permit farming operations and other uses by the landowners. As noted in the Oklahoma Water Resources Board's presentation, the primary purpose of Navina Reservoir is to provide water supplies for communities and rural water districts in central Oklahoma.

Navina would provide 23,750-acre-feet of water for use each year, and that's equivalent to approximately 21 million gallons per day. Without additional sources of water several communities in the central Oklahoma area will very likely be facing serious water shortages within the next 10 to 20 years.

Although the primary purpose of the project is to provide needed water supplies, we are required by law to consider other purposes that the project might serve, to the extent that they do not interfere with the projects water supply functions. Our studies indicate that Navina Reservoir, in addition to water supplied, could provide more than a million visitor days of recreation per year.

Recreation uses would include boating, fishing, picnicking, and other outdoor activities. The projected proposed project would also provide opportunities for fish and wildlife conservation, the management and improvement of habitat, substitute wildlife habitat to mitigate the loss of habitat inundated by the reservoir as required by law.

Downstream from the dam stream flows would be maintained by the waste water treatment plants' discharges, augmented by releases from the reservoir as necessary, to support fish and wildlife habitat. Flood control was also studied as a possible project function.

Our studies found that the fast rising flood on Cottonwood Creek would require an unusually large volume of flood control storage to significantly reduce the downstream flooding. The cost of providing that storage would be high and would not be supported by the dollar benefits computed for us by the Corps of Engineers.

For these reasons flood control storage in Navina Reservoir does not appear to be an adequate solution by itself to the kind of flood problems we have on Cottonwood Creek. We had begun looking at other flood control alternatives shortly before the studies were suspended in 1980.

One solution that appeared to offer promise would be to direct the major flood flows to the north into the Cimarron River, bypassing the city of Guthrie and other areas downstream from Navina Dam. If additional project studies are authorized, we will continue to look at all possible measures to provide flood protection as a part of the project in further exploring possible alternatives.

We work closely with the Oklahoma Water Resources Board, the Corps of Engineers, Soil Conservation Service, and the local people to try to find an acceptable solution. Indeed, in view of the disastrous devastation and probable high loss of lives that could occur with floods of even greater magnitude than the one last October, it would seem unconscionable to build this project without some measures to reduce the Cottonwood Creek's rampages.

Mr. Chairman, that concludes the slide portion of my presentation. In conclusion, I would just like to very briefly summarize three salient points. First, several communities in central Oklahoma will need additional sources of water over the next 10 to 20 years to avert projected water shortages.

Second, Cottonwood Creek is the only remaining reservoir site in central Oklahoma that could be developed to meet those needs. Third, if the decision regarding Navina Reservoir is not made soon, the site will be forever lost due to urban encroachment. Thank you very much.

Senator NICKLES. Thank you, Mr. Peck, and Mr. Smith. A couple of questions for both of you, either one of you can answer these. Mr. Smith, you have stated, or I stated I think earlier, that this

was the No. 1 project in the State in the Oklahoma Water Resources Board's comprehensive study.

You're familiar with it, and I'm familiar with it, but probably many of the people here are not, it did encompass all the potential water projects that have been considered, or possibly would be considered, and of all those this was the No. 1 project according to your analysis?

Mr. SMITH. That's correct Mr. Chairman. The Oklahoma comprehensive water plan, and in that plan we forecasted future water needs for every county in the State of Oklahoma, and then we identified existing, proposed or potential reservoir sites that can meet those demands.

In the north central region, which Logan County is included in, and in the central region, which includes Canadian and Oklahoma Countries, the Seward project was identified as a potential source of supply for the communities in that area, and it is the number one project the water resources board is supporting at this time, on behalf of the Bureau of Reclamation.

Senator NICKLES. In making those analyses you considered probably everything, including cost and what it would cost for land, etc. The cost of this project is very large and I mentioned I had some reservations, and Mr. Peck you're aware of them, and I've already stated my reservations.

One of the large reservations that I had was the cost, which seems so large, particularly considering the dam size. You had those figures in mind, too, were you considering primarily the population growth and industrial growth that we've seen in central Oklahoma?

Mr. SMITH. The growth precipitated that need to look at additional sources. The Seward Dam site, or the Navina Dam site was identified as the only dam site in this particular area that would provide sufficient yield to justify a cost effective reservoir. Therefore, the need was already brought about by the growth, and the dam site itself was the only one that we thought was remaining that would be of sufficient size to yield sufficient water.

Senator NICKLES. And this is with the board considering the fact that Arcadia is coming on line in the not too distant future, that the McGee Creek Project will be coming on line, but in spite of those additional sources you feel we'll still need additional water?

Mr. SMITH. Yes, sir. The Oklahoma comprehensive water plan was a document to predict the needs out to the year 2040 and the water resources planning. It is imperative that we look at long-range solutions because of the long lead time necessary for planning, engineering, designing and opening construction.

Therefore, we view the Seward project as a long-range solution that would be possibly coming on line in 15 or 20 years; and based upon the yield from Arcadia for Edmond, and for Oklahoma City's supply in McGee Creek, we still felt like the needs were there for this reservoir within the next 15 to 20 years.

Senator NICKLES. I think Mr. Peck, you mentioned that the Navina Reservoir could be the only reservoir that would be large enough to implement in central Oklahoma?

Mr. PECK. Yes sir; that is right.

Senator NICKLES. What other alternatives were there? I'm assuming that you'd already taken into account Arcadia as well.

Mr. PECK. Yes; the only alternatives that I see are importation of additional water from outside the area into the area.

Senator NICKLES. By pipeline?

Mr. PECK. Yes.

Senator NICKLES. Concerning the cost, a couple of questions. You gentlemen are familiar with some of the other projects. Again, I mentioned I had some reservations about these costs, the $270 million figure which we inserted in our bill. Can you tell us where that figure came from, Mr. Peck?

Mr. PECK. Yes; that's correct.

Senator NICKLES. Was that a result of the analysis that the Bureau had done in 1981?

Mr. PECK. Yes; though actually, it was done in 1980, as I recall, January 1980 cost figure. That cost estimate was done back at the time we were looking at very high inflation rates, escalation, construction costs were running 10 percent or better a year, and there was a feeling that this might continue indefinitely, which of course it hasn't done.

We haven't made any more recent estimates to try to really find that cost in terms of today's construction cost, there's quite a bit of work involved, we haven't been funded to dc additional studies since 1980.

Senator NICKLES. In trying to analyze this and maybe make some type of comparison; the Arcadia project—well, I'll mention the McGee Creek project, because it's a Bureau project. Could you give us a little history on how that project has come in compared to original estimates and what it looks like now, as far as out-of-pocket costs?

Mr. PECK. Yes, sir, very roughly, back about the same time period we had estimates for McGee Creek project that also were increasing at a very rapid rate. For example, the estimate, I believe it was 1980, on McGee Creek project for construction of the dam and the dike was $68 million.

Only about 10 months later, when the final estimates were prepared, when we prepared the plans and specifications to go to bid, we had reduced the engineer's estimate to about $42 million; and then when the bids came in and there was a lot of activity on the bid, it came in at about, as I recall about $37 million—$27 million, a very good price on it.

On the second phase of that, the pipeline and pumping plant to carry the water from McGee Creek Reservoir over to Lake Watoka, could be picked up by Oklahoma City's pipeline. We had originally estimated about $42 to $44 million during this same time period.

By the time it came up for bid the engineer's estimate had been reduced to $22 million and the project came in at about $16.7 million. So this is indicative, I think, of what's been happening with respect to construction costs in the last few years. We're very happy to see it.

Senator NICKLES. Lower inflation, more competition, plus you have some contractors that are probably hungry and very competitive at this time.

Mr. PECK. Yes.

Senator NICKLES. I wish more Government projects that we would see would be coming down instead of inflating. Mr. Smith, you mentioned that a number of communities that were involved, like Guthrie and Edmond, had indicated that they would support additional planning but not necessarily to the point where they were willing to put their name on the line as far as purchasing additional water.

Is it your belief that they will definitely have the demand there? I don't want to be in the situation where we would say, yes; there is a shortage, and go to the expense and trouble and problems that would be caused by building the reservoir and then have the reservoir with water that couldn't be sold.

Mr. SMITH. That's a good point, Mr. Chairman, but based upon our population pattern growth and the water usage figures that we're seeing coming out of Edmond and Guthrie, and the rural areas in Logan County and Oklahoma County, the projections indicate that the demand will be there in the next 15 to 20 years for the water.

Senator NICKLES. This project being a Bureau project—that portion of the project allocated to municipal and industrial water would have to be repaid by the users, and we've got a lot of the users in this room. It's going to be an expensive project. If it was built would the water be affordable?

Mr. SMITH. Yes, sir; I think it would be. If you don't have any other water to go to, and that's the real question right now, is just how valuable or how much will you pay for that water in 20 years. We have seen a lot of projects in the past where people, probably in this room, have said they couldn't afford to get on a rural water district because the cost was so expensive, yet 10 or 15 years after they've been on the system they realize they've got a bargain.

Senator NICKLES. A lot of communities, particularly the rural communities, water district communities, supplement their water supply from the Wellington Aquifer. What type of projections do you have for that aquifer for this region?

Mr. SMITH. Right now the Garber-Wellington is being studied in detail by the Association of Central Oklahoma Governments, or ACOG. ACOG is looking at the potential for the Garber-Wellington as a water supply for this area.

As far as I know those results have not been prepared or released in any great detail. The problem right here in this area, as you well know, is that the Garber-Wellington kind of fades out, and this area is on the outcrop of the Garber-Wellington, and the yields are not as good as they are in the central areas of Oklahoma County and northern Oklahoma County, and the quality is not as good.

So we are working with ACOG to determine just how that ground water might be used as a supplemental source in the future, but at this time we have no real findings from ACOG.

Senator NICKLES. By quality you mean that you're getting some saltwater intrusions?

Mr. SMITH. That's correct.

Senator NICKLES. I might mention another area that our committee is working on, and that is an effort to try to work on ground

water recharge, and see if we can't come up with some methods to not only recharge but increase the quality as well.

Certainly, as many people in this room will admit, there's a lot of problems with an above-ground reservoir that you just don't have with an underground reservoir. So we'll be working on that as well.

As a matter of fact, I've introduced legislation that has already passed the House and we hope to have it pass the Senate this year as well. We're hopeful this will be a step in that right direction. We'll probably be doing some work along that same line. I mention this just as a general comment coupled, too, with the work we do with the water and power subcommittee.

Water is essential for economic development and power is essential for economic development, and really we need both. We have people. With those combinations of resources, we have the people in Oklahoma, and for the most part we have the power in Oklahoma, and the other natural resources, but water could be the deficiency in that three-sided equation for real economic, industrial, agricultural growth in Oklahoma in the future.

So that's one of the reasons why I'm on this committee, and one of the reasons why we're looking at some alternatives. This is one. I appreciate the work that the Bureau and the Oklahoma Water Resources Board have done in elevating this proposal.

One of the purposes of this hearing today is to bring it to light, and I think I would agree with Mr. Peck as far as the decisions, there is a window, maybe, of opportunity, but if it's procrastinated indefinitely or too long, the project will no longer become feasible because of the high cost of development.

One additional question, and that relates to flood control. We saw the video of the earlier flood this year. Actually, there's been a history of floods. I've done a little homework, and I think the film mentioned as well, there have been several floods along Cottonwood Creek in the past that have been very hazardous and very costly to the citizens, of Logan County, in particular, also to the citizens of Guthrie as well.

Mr. Peck, you mentioned that the reservoir as now proposed—I don't know if you used the words, "wouldn't be adequate", but at least it wouldn't be a total solution toward flood control for the people of Guthrie?

Mr. PECK. Yes; that's correct. In order to provide the level of protection that the people are seeking in Guthrie, you'd have to provide an awful lot of flood control storage in the reservoir, in fact, more than the site could be developed for.

So by itself that's not an adequate solution to the problem. About the best that we can hope to do would be to maybe knock the peaks off of some of these large floods, like we had in October, and that really wouldn't provide much help to us.

Senator NICKLES. Could you go into that so people will be able to understand, because a lot of people think, well, we have a reservoir, it's upstream, and that reservoir should be able to solve our flooding problem.

What you're saying, it would help, it would diminish, or reduce the damage, but it wouldn't totally eliminate it if you already had

the reservoir somewhat full, or substantially full, and then you had a flash flood or a rapid sequence where you had a lot of rain.

I think this mentioned 8 inches in a very short period of time. If you had that type of downpour you would still have some flooding problems, lacking other contingencies or some other additional steps, which also could be costly.

Mr. PECK. That's correct. In very simple terms, when the reservoir is full the additional water that comes in has got to go someplace. On our projects that means that it goes over the spillway and on down the river. So what I'm saying, that while that will help a little bit to knock the peak off of it, by itself it doesn't solve the problem in Guthrie.

We have some rather unique problems. You have, first of all, the flood-plain area, which is really a part of the river, where development has taken place in the past; and it would be practically impossible, it seems to me, to provide a physical solution that would solve that problem entirely.

So there has to be some clearing of flood plain, perhaps some channelization maybe, through the city of Guthrie, in conjunction with fllod control storage in the reservoir. Or the other alternative I mentioned, and that would be to make a cut through the divide, drain at least the major flood flows surplus water over into the Cimarron River, bypassing the city of Guthrie entirely.

Now, that solution would provide perhaps the most protection for the city of Guthrie and the areas downstream, but it would also be the most expensive. So we have to look at those and try to find the best combination that we can, of things that would provide an adequate level of flood protection for the city of Guthrie at the least amount of cost.

Senator NICKLES. I appreciate both of you gentlemen's comments, and also your expertise and work. I made the point, and I wanted to make sure you actually had mentioned it in your comments, but a lot of people have had the mistaken conclusion that if this reservoir were built there would be no more flood problems.

I think it's important to note that, yes, there still would be potential for problems in the future, and those need to be addressed by city officials, and possibly some additional add ons to the project, additional flood easements downstream or wherever, if we're going to be able to take care of that contingency.

Gentlemen, thank you very much. Will you be around or available today, because I'm sure there will be some additional comments made later, and possibly we might want to direct those to you. Thank you very much.

Mr. PECK. Thank you.

Senator NICKLES. All right. A couple of comments and maybe a couple of introductions, we'll be going to our second panel. Also, I might mention we have several more panels and people who have indicated their desire to testify. I took a great deal of time with our first panelists because they've been involved with this project for a long time.

By necessity, if we're going to be able to visit with everyone and hear everyone that has a desire to testify today, we'll have to move a little quicker. I might make a couple of introductions as well. We have a representative from the Commissioner's office, Bureau of

Reclamation from Washington, DC, who is with us today, I might introduce him, Robbie Aiken. Robbie, you might stand up and wave.

We appreciate your interest, and Commission Broadbent's interest, also. We appreciate your following these proceedings.

Also, I might introduce Clinton Key, of my staff, who has been working with many of you in this area. He's also adding to the number of people who are testifying at this hearing.

We'll move right on now to our second panel, and if everyone would please join us at the same time. We have Dan Ward, who is city manager of the city of Guthrie; we have Glenn Sullivan, from the Benham Group in Oklahoma City; we have Tim Maupin, assistant city manager of Oklahoma City; we have Mayor Paul Reherman, from Edmond; and also, Dallas Graham, who is the city manager of Edmond; we have Ken McFall, from Oklahoma Farm Bureau.

Gentleman, the room being what it is, we'll have to just kind of take turns with the microphone, I really don't care who starts, but if each one of you, would pull the microphone up as close as you can. We have a lot of people back there in the corner and I'd like for them to be able to hear. Mr. Sullivan, are you ready to start?

STATEMENT OF GLENN H. SULLIVAN, EXECUTIVE VICE PRESIDENT, THE BENHAM GROUP, INC.

Mr. SULLIVAN. I suppose you could say that I'm past ready. I've been sitting back there sort of chewing on my tongue, itching to say something. It did prompt a couple of comments, I have written testimony that I would like to present to you, Senator.

Senator NICKLES. I might make a comment, this might be able to expedite our proceedings, because we do have a lot of people who wish to testify. If you have prepared written remarks that you wish to have entered in the record we will enter those in full.

So it won't be necessary for you to read those, and you can make some oral comments on some of the questions or some of the discussions that has preceded. Please proceed, your comments will be entered into the record.

Mr. SULLIVAN. Thank you, sir, thank you. It is a real pleasure to be here, and thank you for your efforts. Of course, the Water Resources Board and the Bureau of Reclamation did an outstanding job of outlining some of the dilemmas and some of the problems that we face in central Oklahoma.

As you indicated, I am executive vice-president of the Benham Group, I'm also chairman of the State Chamber of Commerce Water Resource Committee, a statewide group supporting water needs for the State of Oklahoma and how to satisfy those needs.

I would like to point out a couple of little things that we touched on, and I don't know if everyone is really fully aware of the problems, and that is, if we took an imaginary line, ran it up and down the State through Interstate 35, north to south, and we looked to the west of that line you would see two major problems.

No. 1, all of the good quality water basically is appropriated, it's already developed, with the exception, for instance, of Cottonwood Creek and another one down in south central Oklahoma. No. 2 is

Mother Nature, and that's the water quality. The other streams that aren't appropriated, like the Cimarron that we live on right here, we can't use it because of what Mother Nature's done to it.

So we must look at the quality and we must look at what is available, when we start talking about planning for a region. The other dilemma goes back to ground water, and we touched on the Garber-Wellington formation, as you're certainly well aware the quality problems we get into there sometimes are quite critical.

We do have the fresh water that sits on top of salt water, and if we overdraft, over pump, drill our wells too deep, and things of pumping nature, then immediately we start pumping salt water up into our water supply. So it is touchy to develop the ground waters in central Oklahoma.

We have been the engineers for many of the cities of central Oklahoma, and through the State chamber's activities we are asked to look at long-range solutions. Serving on a panel with me in Oklahoma City, Guthrie, as well as Edmond. We have done studies for them, and they are in a dilemma when it comes to future water supplies.

From the State chamber of commerce standpoint, and from the engineering standpoint, we are in full support of additional water supply development in central Oklahoma, certainly the Seward project, if it's economically feasible and the quality and everything, fits, we support it 100 percent. We make no bones about that.

If I might get a little bit to my prepared remarks then. By the time the construction of Seward Reservoir is completed we are going to be in extremely short supply of adequate water we have. Now, there's no mistaking about that statement, I don't think anyone in this room contests that statement.

Senator NICKLES. "We", are you talking about Oklahoma City, Guthrie, Edmond?

Mr. SULLIVAN. Central Oklahoma, we can extend that to Bethany, El Reno, Yukon, Mustang, central Oklahoma area, by the turn of the century is going to be in extremely short supply, so we must develop any water supplies that we can. Similarly to what Rick Smith said, this may be an extremely expensive project until you compare it to something else.

So the cost alternatives just may be that this is certainly a good price for water. It is expensive, I grant you, what you're questioning about is how expensive is this, and it's very expensive compared to other waters, but if there's no other water to go to then that's the alternative we must look at.

Rural water districts in the State of Oklahoma today, some of them are paying $25 per 1,000 minimum water bills, the first 1,000 gallons of water they get is $25, a tremendous expense for water supply in areas that are short of water.

One of the features that we do want the Bureau to look at in their additional studies delves on the question of the Oklahoma City waste water stream facility on Deer Creek, immediately upstream from the reservoir site, additional information concerning the impact of the reservoir on the treatment plant operations, the flood control features needed for the waste water plant, and any potential changes in the NPDES early on we think would clarify a lot of questions that have come up to us about that operation.

In other words, do we need to continue advanced waste treatment or can secondary treatment—can we get by with secondary treatment on the plan. Certainly, we'll make available any records that we have, that we've obtained in our efforts on behalf of the cities or anybody in central Oklahoma, and look forward to working with the Bureau of Reclamation on this project.

As Andy and the Water Resources Board know, we certainly cooperate fully with them in this area. You know, the cost of this project has increased several times because we did not proceed 10 or 15 years ago. We're talking about dates like that last 8 or 10, 15 years ago I happened to be at the water board and we were looking at the Seward project, and certainly we don't want any additional time taken before we start acquiring the right-of-way and proceed with this very important project.

We think it's very essential that we proceed with this project and either get on or get off of it. One final comment, and I start to get on my soap box about this once in a while, there's going to be a lot of people displaced because of this project. Anytime you build a reservoir you take the very best land you can. The State chamber of commerce, the State board of agriculture, and even recently the State water resources board, have gone on record as supporting a review of right-of-way or land acquisitions.

As you're well aware, as we acquire land for any public works project such as this, the people have 2 years to reinvest their money into similar operations. In other words, if they're a rancher with 500 acres out here, they have to reinvest it in ranching activities.

They may be 70 years old and really not wish to reinvest, but if they don't, the Lord giveth and the Lord taketh away; capital gains takes away half of their money. We would like to see some meaningful legislation supporting a review of the people that own parcels of land that will be hardshipped and displaced, yet I don't think we're going to find any land in this area that they could acquire similarly, it becomes a problem when we're talking about chloride control projects, or whether we talk about flood projects.

Senator, we'd like to have you have a look at that, and support us if you can, in any way, in meaningful legislation that would relieve these people of the capital gains taxes, allow them to invest it in something else if they can't in ranching land, or if they're over 65 or 70 years of age why would they necessarily need to pay capital gains on it.

Senator NICKLES. Right now the reinvestment has to be made within 2 years and it has to be a similar type operation?

Mr. SULLIVAN. That's correct. That concludes my remarks.

[The prepared statement of Mr. Sullivan follows:]

The BenhamGroup

Corporate Offices

January 6, 1984

Honorable Don Nickles
Chairman, Subcommittee
on Water & Power
United States Senate
Washington, D.C. 20510

Re: Hearing on Seward Project
at Guthrie, Oklahoma

Dear Senator Nickles:

I am Glenn Sullivan, Executive Vice President of The Benham Group, also Chairman of the State Chamber of Commerce Water Resources Committee. We have been the engineers for Oklahoma City and several cities throughout the State of Oklahoma. I am here in total support of the Seward project. The cities of Oklahoma City and Guthrie, whom we have done water supply studies for, are both very interested in additional water supplies for this area. We, therefore, want to go on record as supporting the Seward project.

By the time Seward Reservoir could be constructed, central Oklahoma will be extremely short of adequate water supply. Make no mistake about it. Along with our support go some questions that are prudent and probably the Bureau of Reclamation has already planned to answer or comment on. Points that we would like to see addressed early on in the additional engineering studies anticipated, would be the quality of water that can be anticipated during the life of the project. Future urban development will undoubtedly reach into the drainage area of the proposed new reservoir.

Oklahoma City presently operates a waste water treatment plant immediately upstream of the reservoir site. We are certain that plans call for the effluent from this plant to be bypassed around the dam site. Additional information concerning the impact of the reservoir on the treatment plant operations, the flood control features needed for the waste water plant, and any potential changes in the NPDES permit requirements.

We will make available all the records that have been obtained in our studies which show the severe need for additional water supplies in this area and we would support wholeheartedly the Bureau of Reclamation's efforts to act early on the project to the extent that the right-of-way costs do not preclude the project from being economically feasible.

P.O. Box 20400 • 3400 North Broadway • Oklahoma City, Oklahoma 73156 • 405/478-5353

The cost of the project has increased several times because we did not proceed ten to fifteen years ago. We certainly do not want any additional time taken before we start acquiring right-of-way and proceed with this very important project if it is economically feasible.

Mr. Chairman, it is a real pleasure to be here on behalf of the Oklahoma State Chamber of Commerce, the City of Oklahoma City and the cities within central Oklahoma.

Thank you very much.

Respectfully submitted,

Glenn H. Sullivan
Executive Vice President
The Benham Group, Inc.

Senator NICKLES. Thank you very much, Mr. Sullivan. Again please each one of you identify yourself and keep the microphone pretty close.

STATEMENT OF TIM MAUPIN, ASSISTANT CITY MANAGER, OKLAHOMA CITY, OK

Mr. MAUPIN. Senator, my name is Tim Maupin, I am assistant city manager to the city of Oklahoma City, and I have been the acting director of water resources for the city during an interim period for the last 9 months while we were reaching for a new director.

I have a written statement from our city manager that we would like to enter into the record, but I would like to just touch on a few major points. I think it goes without saying that the city of Oklahoma City has long been concerned about water in central Oklahoma.

The city of Oklahoma City has been a leader, and has taken a number of steps to insure its own future water supply, and that of some other communities with whom we work and to whom we supply. I think we can say that at this time we do support continued investigation of the Navina plan, but we have several concerns that we would request be thoroughly and adequately addressed throughout any additional planning process.

The first point concerns the quality of the water. Mr. Smith said earlier that there is growth in population and there will be a demand for more water, the other side of that coin, however, concerns known point source runoff, and what you have is a situation there where the continued growth will also impact on the quality of water in that reservoir for that reason.

The Arcadia project has some similar problems, and that is why the city of Oklahoma City chose not to participate in that project. So in a nutshell, will the quality of water that would run into this reservoir today be as good as it's ever going to be? Second——

Senator NICKLES. I just want to make sure I understand. Do you believe, or you've done enough homework that you think there might be a water quality problem in the reservoir after the surrounding area is more substantially developed?

Mr. MAUPIN. We have not done any detailed studies, but I think it just follows where you have intensive urban growth and development, and you have a different kind of runoff, and you have the runoff from that kind of development, that it is not going to be as good a runoff as if you have it just in the State it is now, it's going to be worse.

We think that that should be addressed, that the northern part of Oklahoma City and Oklahoma County, in the southern part of Logan County, is becoming increasingly urbanized. That's the one side of the argument for this reservoir, is that with that growth you're going to need more water, but also with that growth you're impacting adversely on the quality of water.

Senator NICKLES. You mention you elected not to participate in Arcadia, we have cities that are participating in Arcadia, but you think the quality of water in Arcadia will deteriorate to such point that even with treatment there might be a quality problem?

Mr. MAUPIN. Well, that was one of our concerns and that is why we did not participate. I am not familiar with what the latest measures of the cities that are participating in Arcadia are doing but we felt it was of significant—of enough concern to Oklahoma City that we chose not to participate.

Senator NICKLES. OK, go ahead.

Mr. MAUPIN. Our second point concerns the proposal to divert the effluent from the Deer Creek and Bethany-Warr Acres sewage treatment plants. We're concerned that with that piping system, about the future operation and the maintenance responsibilities as to who will be responsible for that, and we think that is a point that should be studied.

Third, along that same line, the city of Oklahoma City is currently funding an environmental assessment of the Cottonwood Creek to determine if the Deer Creek and Chisholm Creek treatment plants could revert to secondary treatment.

Mr. Sullivan touched on that we have come to an agreement with the city of Guthrie. Our sewage treatment plant was impacting on the Cottonwood Creek, and we feel that we have made an agreement with the city of Guthrie, and we are trying to revert the Chisholm Creek plant to secondary treatment.

We feel that we might be presented with the same problem if this reservoir is built there, we would be locked into a situation where we're required to provide a higher level of treatment so that it does not impact adversely on this reservoir.

The next point also concerns the three sewage treatment plants and just exactly what would happen if we had some sort of major power outage or natural disaster, which might inhibit any of these plants' ability to properly treat the sewage, and if that goes into the reservoir. We think that's a point that should be given some consideration.

The water cost, we are also concerned about the water cost, just as everyone is, and we are especially concerned about the cost of delivered water from this project as it might relate to the existing sources we have, and also our existing and extensive financial commitments in other watersheds, specifically McGee Creek.

The city of Oklahoma City is currently in the process of updating our master plan, and at this point we are not in a position to make any commitment. We think that this project, it appears at this time to be contrary to agreed regional goals through the Association of Governments, however, we do support a continued study of the project. we thank you for the opportunity to address you, Senator.

[The letter from Scott Johnson, city manager, Oklahoma City follows:]

The City of
Oklahoma City
Office of the City Manager
200 N. Walker
Oklahoma City, Okla. 73102
Tel. (405) 231-2345

January 9, 1984

The Honorable Don Nickles
United States Senator
713 Hart Office Building
Washington, DC 20510

The City of Oklahoma City has long been concerned with the continuing need to provide high quality affordable drinking water sources for the central Oklahoma area.

The U. S. Bureau of Reclamation's proposed Seward Reservoir project is intended to meet some of the future municipal and industrial water supply needs of the cities of Edmond and Guthrie, as well as surrounding communities in Logan County and parts of Oklahoma, Canadian and Kingfisher Counties. Because of the potential benefits to the region, Oklahoma City supports continued investigation of the Navina Plan, but requests that the following concerns be thoroughly and adequately addressed throughout the planning process:

1. Oklahoma City is currently funding an environmental assessment of Cottonwood Creek to determine if the Deer Creek and Chisholm Creek Waste Water Treatment Facilities could revert to secondary treatment levels. This assessment is consistent with an agreement with the City of Guthrie for sale of piped water and abandonment of Cottonwood Creek as a municipal water resource. Direct discharge of effluent into the Seward Reservoir would be contrary to this goal and to the agreement between the two cities.

2. A pipeline is proposed to divert effluent from the Deer Creek and Bethany-Warr Acres sewage treatment plants to the Chisholm Creek Plant as part of the construction costs for the reservoir. Oklahoma City is concerned about the reliability of this piping system, and about future operation and maintenance responsibilities. Additionally, the impact of large amounts of treated effluent at one location on Chisholm Creek needs to be addressed in the light of secondary treatment.

3. Due to non-point source run-off in the four county area served by the proposed project, Oklahoma City is concerned about water quality in the Seward Reservoir.

4. Although water costs in central Oklahoma will always be high, Oklahoma City is concerned about the potential costs of delivered water for this project as compared with existing sources, especially in light of our extensive fiscal commitment in other water sheds.

5. Oklahoma City is now in the process of updating its five-year water master plan. We are not in a position to make a commitment to any new water source without fully evaluating that source in light of our current obligations and overall projected water needs.

6. Finally, we are concerned about the proximity of three major sewage treatment facilities to this proposed drinking water supply. A power outage or natural disaster could inhibit a plant's ability to treat raw sewage, resulting in possible contamination of the reservoir.

In conclusion, the City of Oklahoma City is committed to helping meet the long range water supply needs of this region. The Seward/Navina Project deserves further consideration and study as a possible solution to these needs, but at this time the project appears contrary to agreed regional goals.

Scott Johnson
City Manager

PH/clg

Senator NICKLES. I intend to have everybody speak. Mr. McFall.

STATEMENT OF KENNETH McFALL, EXECUTIVE SECRETARY, OKLAHOMA FARM BUREAU

Mr. MCFALL. Senator Nickles, thank you for the opportunity to talk today. The Oklahoma Farm Bureau, to my knowledge, has never taken a position for or against a specific reservoir; however, we have quite a few policies which are pertinent and which are important, and I'd like to touch on some of those today.

I have a written statement but I'll talk generally off the cuff. We've talked about the dollar cost of these projects but we need to talk about the people cost, we've talked about the benefiting but we need to talk also about those who are not benefited.

Without any doubt there is a need for more water, and I guess you'd say that farmers generally reconcile to the fact that someone's farm is going to get taken but they don't want it to be theirs. I've seen arguments in the State legislature where they've talked about the State legislative plan, and the farmers in the panhandle want more water out there, and the water will come from someone's farm in Oklahoma.

We need to talk about those people who are uprooted from their communities, those who have to start out and look for a new farm or ranch in order not to pay the capital gain, those who have to start all over, some of them at a rather advanced age in life.

We need to talk about the loss of prime farmland, and one of our policies says that this should be the absolute minimum amount of land taken. Generally, the Government takes too much right-of-way for highways or reservoirs.

We're a little bit miffed about the wildlife mitigation angle to these kinds of projects. They seem to be wanting to put a wildlife habitat where no wildlife habitat existed before, and that doesn't make much sense. If you're doing away with a lake, a small lake, then maybe you need to mitigate that now, but if there's no duck ponds there now, why should there be duck ponds there in the future?

The first prerequisites for construction policy says, talking about the statewide water plan, is that there should be a priority given to the establishment ahead of time, to upstream flood control to make necessary either a smaller reservoir or at least to extend the life of the one you build; because if you silt it in, in 50 years you're looking for another site.

Federal tax laws, however, are one of my main concerns. I've lost this name all of a sudden, he's pretty easy to forget—Glenn Sullivan covered an angle about the reinvestment in the 2 years, I though it was 18 months, but nonetheless, they are forced to reinvest in a certain period, I believe it's 18 months.

If they are of retirement age they should absolutely not have to reinvest at all. I have visited with some people who were uprooted by the Arcadia project in the last year and a half, they had to move. They tell me while everyone in the country knew that lake was going to be built, they could not go ahead and make their dealing on the replacement farm.

They actually had to wait until they were served with a condemnation order before they could actually start the 18 months to running, and that seems to me it shouldn't be all that much mystery when they can start. Present laws seem to be written with small landowners in mind, since places with the homestead of 5 acres or less are given special treatment.

If they cannot find mortgage money to compare with the low rate they've been paying, maybe as low as 4 and 5 percent, on their old home, the Government makes up the difference in the purchase price. There is no such treatment for those with more than 5 acres.

It seems to me there ought to be a study, as soon as the announcement is made that a lake might be built, like today, land values in condemned areas or the areas that are likely to be condemned, either stabilize of start going down. Then when it comes time to establish the comparable sales condemnation price, they are lower than the market ought to be.

These are the people who are not getting the benefits, and some cases they get—it costs them real money to move, and all kind of trouble. There is no provision in the law for a loss of business loss. One dairyman I talked to had to move from the Arcadia Lake area, he says his milk, his DHI records, suffered as a result of the move, he can document that.

There is no way under the law that they can compensate him for that loss of business, and that ought to be looked at. You'll find, I think, that Senator Boren and Representative Edwards have pretty fat files on the Arcadia project that might be very instructive.

I can give you the names of some more people in the Arcadia area if you want to follow through with some of those people's experiences. The American Farm Bureau policy on the subject is as follows: When farmers are forced, by government regulations or condemnation, to sell land, buildings, livestock, or other production items, they should be exempt from tax on the proceeds from such sale, provided they have owned the farm for 5 or more years, and have derived at least half their income from farming for at least 5 years.

Property owners affected by eminent domain should be given the option of replacing the condemned property or reporting the taxable gain over a period of years. I'm sure there are other things that could be considered. I'm glad to hear Rick Smith say they propose to take the least possible amount of land by condemnation, that they would have a flood easement.

I would suggest that it's also policy that they can take a larger easement for construction purposes and at the end of that construction time turn back a greater part of that to the original owner. Thank you, sir.

[The prepared statement of Mr. McFall follows:]

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OKLAHOMA FARM BUREAU
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OKLAHOMA CITY, OKLAHOMA 73152 (405) 523-2300

January 10, 1984

The Honorable Don Nickles
United State Senate
Washington, D.C. 20510

Dear Senator:

We appreciate the opportunity to place before you some observations about the proposed Seward Project (Navina Dam and Reservoir), on behalf of the membership of the Oklahoma Farm Bureau.

Our delegate body has seldom taken a position in favor or in opposition to a specific proposed reservoir. We have no stated policy on the proposed Seward Project, but we have several other general policies which are pertinent.

Seward Reservoir is one of the structures proposed in the state's Comprehensive Water Plan, which has been adopted tentatively by the legislature.

In our policy on the water plan, we call for the absolute minimum amount of land to be taken, in order to preserve as much prime agricultural land as possible. Our policy states that "the first prerequisite for construction of any large reservoir shall be the establishment of upstream flood control measures and land treatment above the proposed lake". This would obviously extend the life of the lake and reduce the overall cost in the long term.

The federal tax laws that require investment in like property within a certain period of time, to avoid paying capital gains taxes, have worked severe hardships on landowners who have been uprooted in the past by forced sales.

The IRS should be ordered to treat on a case by case basis, the owners who are forced to move by such a project. If the owners are at retirement age, perhaps they should not be required to reinvest the proceeds of the forced sale at all.

I have visited with some people who were forced to move in the past two years because of construction of the Arcadia Reservoir. They tell me that while every one knew many months ahead of time that the land would be taken for a lake, the landowner could not go ahead and buy his replacement farm. In order to get the 18 months leeway for investing, he had to wait until he had been served with a condemnation order.

Present laws seem to be written with small landowners in mind, since places with a homestead and five acres or less are given special treatment. If they are unable to find mortgage money at the same low rate they had on their condemned home, the government makes up the difference in the purchase price. No such treatment exists for those with more than five acres.

As soon as the announcement is made that a lake MAY be built, land values in the condemned areas either stabilize or go down. Then when it comes time to establish "comparable sales", they are lower than the real market.

There is no provision in the law for "loss of business" losses, which can easily be established. A dairyman who had to move his operation to another place suffered a loss of milk production solely because of the dislocation of the herd. There was no way he could be paid for that loss under the law.

I think you will find that Senator David Boren and Rep. Mickey Edwards already have files from the Arcadia Lake, the most recent one in the state, that would be of benefit to you in changing some laws dealing with condemnation. I can give you the names of people who have been through such an experience.

Our American Farm Bureau policy on the subject is as follows: "When farmers are forced by government regulations or condemnation to sell land, buildings, livestock or other production items, they should be exempt from tax on the proceeds from such sale, provided they have owned the farm for . or more years and have derived at least half their income from farming for at least 5 years. Property owners affected by eminent domain should be given the option of replacing the condemned property or reporting the taxable gain over a period of years."

Best personal regards,

Kenneth McFall
Executive Secretary

KM:np

cc: James Freunberger, President, Logan County Farm Bureau
Ralph Wilson, President, Oklahoma County Farm Bureau

Senator NICKLES. Thank you very much, Mr. McFall, you made some good suggestions, I appreciate that.

STATEMENT OF DAN WARD, CITY MANAGER, CITY OF GUTHRIE, OK

Mr. WARD. Senator, I am Dan Ward, city manager for the city of Guthrie. I'm here representing the city council for the city of Guthrie. Back in June of this year, the council endorsed by resolution and unanimous vote, the support of continued studies for the Seward project.

That resolution remains in effect to date, and obviously since that point in time some of our particular concerns have changed in their order of importance. The illustrations through the slide presentation and the video, indicate right now, obviously, that the city of Guthrie is very concerned with flood control.

Seward is not, and we know that it has never been targeted at being a major or total flood control project; however, one of our concerns is the types of things that might be incorporated within the Seward project to better aid Guthrie, and our ability to combat severe flooding.

Additionally, as with most other communities in central Oklahoma, we are very concerned about the need for water. Guthrie has two lakes presently that provide the bulk of our water supply. Over the past 5 years, in projecting in the future, similar rates of increase, our lakes will reach maximum capacity within the next 5 to 7 years, which forces Guthrie in the position where we must seek alternative solutions for our water supply needs.

Additionally, because we are reaching a peak at present in our delivery systems, we are having trouble in tracking industries that may be large water users. So here again, we are very concerned about potential water supplies.

The Seward project seems to have many good benefits for central Oklahoma; however, we, like most of the other communities, do have several questions and concerns. Some of those are, again, in the cost, particularly of the treatment facilities that the cities that participate will have to obligate for.

We have seen to date no substantiated figures as to what that might in fact be, that makes our planning a little more difficult, in that we can't determine whether they are cheaper or more cost effective alternatives. Additionally, the delivery systems from the proposed treatment facilities to the Guthrie facilities, and the type of treatment involved.

One of the situations, as was mentioned earlier, Guthrie has entered into an agreement with Oklahoma City for a short-term solution to our water needs; however, even in that particular system we find that the treatment facilities for the treatment of the Oklahoma City water is different than that from Guthrie water, which requires additional treatment and/or separate systems.

So we're very concerned about the type of treatment we're talking about, and how compatible it will be with ours, and other cities' systems. More particularly, if we're talking about the commingling of surface water and ground water, we found this to be incompatible in most cases.

Since Edmond and many of the other local communities are on ground water supplies, we're not sure what steps have been taken or considered in this area Water quality again, presents a major concern, specifically because of the treatment plants located along Deer Creek, and the move by Oklahoma City to reduce the treatment quality.

We're concerned about both the treatment that may be brought into the lake, as well as the urban runoff as areas continue to develop. We believe that Seward still represents a very viable alternative, and are much interested in seeing continued studies, and more detailed information presented at this point in time. That's really about the position of the city of Guthrie.

Senator NICKLES. OK. Thank you very much, Mr. Ward.

STATEMENT OF CARL REHERMAN, ON BEHALF OF THE CITY OF EDMOND, OK

Mr. REHERMAN. Thank you, Senator, my name is Carl Reherman. I'd like to say that I'm here representing one of the fastest growing communities in the State of Oklahoma. The current population is around 45,000. Our purpose for being here today is to represent the city of Edmond in water development.

We're here on the concern that we believe by the year 2000 we will need additional water supply, when you take into consideration Arcadia's ability, plus the groundwater of the Garber-Wellington. I'd like to confine my remarks to two specific areas.

One is the proposed project, and second to the Arcadia project, because of the comments made here this morning. First, I'd like to say that this project, we're in full support of continued study.

We believe that the project is one that merits additional evaluation to determine all the answers to questions already raised, I don't need to go over those again.

We are concerned by cost, we are concerned about water quality and et cetera. We believe that the future of central Oklahoma though, greatly depends upon the ability to have fresh water, without it the future of Oklahoma, its economic base, its vitality and such, will be extremely damaged, and we will not be able to provide in the year 2000 the quality of life that we have today.

I would like to make a couple of comments about the gentleman's statement from Oklahoma City regarding Lake Arcadia. First of all, since I've been on the council for 8 years, and in looking at the documents, I don't remember when Oklahoma City was asked to be part of it.

I want to state to the record that Edmond has always wanted 100 percent of Lake Arcadia, we have 100 percent of it today, and we don't intend to let any of those water rights go. Also, I would like to say, If he did not understand the quality of water as is projected when the dam was finished, he should not have made comments about the water quality.

Our recent evaluation by professional engineers, which we will provide to you in our written comments, because I think this is important, our recent studies indicate that the water quality is far superior than what we even estimated it to be in the beginning of the planning of Lake Arcadia.

This is a large measure because of action taken by the city of Oklahoma City, also because of changes in the use of unleaded gasoline and many other conditions that have changed within the environment, that you have to take into consideration when you talk about an urban lake such as Arcadia.

Arcadia is a vital and important aspect of the water supply of the city of Edmond, it will be providing us between 11 to 14 million gallons a day of treated water, and that's at full capacity. Currently our need in the summer is about 15 million gallons at peak capacity.

We rely quite heavily on the Garber-Wellington, we currently drill about two wells a year. We are currently operating about 43 deep water wells, our wells are between 600 and 800 feet. This combination of ground water and surface water is a very important part of our continued development.

As far as the city is concerned, we estimate by the year 2000 our population will be between 90,000 and 100,000, we base that not simply on pie-in-the-sky expectations, but because of recent building permits, and because of the developing of subdivisions and such.

This year we've had a record issuing of building permits, going close to 1,500 single family building permits. That is second highest in the metropolitan area, second only to Oklahoma City. We believe Seward Lake, or Seward project as it's now called, needs to be evaluated, it needs to be determined if it is cost feasible, if it is not there needs to be taken into consideration other alternatives.

We will need water by the year 2000. If we don't have water we will then have to turn to, I think, a downgrading in the quality of life for central Oklahoma, which none of us want or expect to have to continue you with. Thank you for coming here today, we appreciate your support very much on Lake Arcadia and other projects of Edmond.

[The prepared statement of Mr. Reherman follows:]

City of Edmond
Office of Mayor

January 10, 1984

The Honorable Don Nickles
Chairman
Subcommittee on Water and Power

RE: Authorizing the Seward Project/Oklahoma

Dear Senator Nickles:

On behalf of the citizens of Edmond, Oklahoma, and the Edmond City Council, I would like to take this opportunity to thank you for giving us the opportunity to appear. Appearing with me today is Mr. Dallas Graham, Edmond City Manager.

We are representing one of the fastest growing cities in Oklahoma. Edmond has a current population of approximately 45,000. Our purpose in being here today is to provide you with additional testimony on water development for Edmond and Central Oklahoma. We believe that over the next 20 years we will need additional water supply for our community. The future of Central Oklahoma depends greatly on the ability to have fresh water.

Many cities and towns of Central Oklahoma have experienced a variety of water problems during the summer of 1980. The city of Edmond presently relies on the Garber Wellington Aquifer for its water supply of 15,000,000 gallons per day at peak capacity. Lake Arcadia is also a vital aspect of our future water supply. It will provide an additional 12,000,000 gallons a day of treated water when completed. The combination of ground and surface water is very important for the continued development of the area. We estimate by the year 2000, Edmond's population alone will be over 90,000. This will increase the estimated needs of Edmond alone to 40,000,000 gallons of water per day.

Present studies indicate that the need for water in Central Oklahoma will be eminent before the supply is available. Many of these cities and towns presently have and, are continuing to experience water problems at this time.

100 E. First • P.O. Box 2970 • Edmond, OK 73083 • 405—348-8830

The projection of future needs far exceeds existing sources of supply available to citizens. It has been determined that the Seward Project is the most feasible source of portable water to meet the future needs of Central Oklahoma. It is also, as you are aware, the number one project of the Oklahoma Water Resources Board for the state's water needs.

In conclusion, the City of Edmond is respectfully requesting that your committee introduce legislation to appropriate funds for the continued planning of the Seward Project.

It has been a pleasure to have the opportunity to discuss with you and menbers of your committee the needs of this project. We sincerely appreciate all the past support that you have given to our community in this effort. Thank you for you consideration of our request. If we can provide you with additional information, please let us know at your convenience.

Sincerely,

CARL F. REHERMAN
Mayor
City of Edmond, Oklahoma

CFR/lm

Senator NICKLES. Thank you very much. Mr. Dallas Graham, did you have any additional comments?

STATEMENT OF DALLAS GRAHAM, CITY MANAGER, CITY OF EDMOND, OK

Mr. GRAHAM. Just a couple of followup comments. I'm Dallas Graham, the city manager for the city of Edmond. As has been mentioned here, urbanization causes problems with the water quality in the surface water; our urbanization also causes problems in the ground water supply, due to the building up of the recharge area that recharges Garber-Willington.

The mayor indicated we have 43 wells we are presently using. In 1980, due to the work that the ACOG group of Garber-Wellington Association is doing, the monitoring of our wells and the Garber-Wellington, the whole Garber-Wellington area. We had a water loss and experienced coning effects by over harvesting the Garber-Wellington area, and as you know, or may know, I know some of the expert engineers—when you get the coning effect, then you take the possibility of intrusion of salt water into your fresh water supply.

Senator NICKLES. By coning, do you mean that salt water is actually coming in?

Mr. GRAHAM. Coming up, you're actually raising the fresh water table to a coning effect if you're harvesting too heavily, and we were forced to do that or be without water in 1980. We did find a lowering of the water table in the Garber-Wellington, and I think in the future with urbanization we're going to see that recharge area, and we'll experience problems by the year 2000.

It is estimated that we will be needing for Edmond, 40 million gallons of water a day. With Lake Arcadia at a peak of 11 to 14 million, the Seward project 21 million gallons, and the 43 wells that we presently have, we'll barely meet our needs in the year 2000, so we feel that the Seward Lake is important.

Senator NICKLES. Did you just assume that you're going to get all the water from——

Mr. GRAHAM. I thought that's what we were here for.

Senator NICKLES. There might be a few people that would dispute that. Gentlemen, I appreciate your comments and all of you, I think have contributed. Just a couple of general comments, I heard reservations from almost, I think, every community that would probably be the major purchasers of water, reservations concerning quality, reservations concerning cost.

Let me hit on one, and that is, is there any question concerning demand? Will there be a demand by the year 2000, that Guthrie, Edmond, maybe Oklahoma City, parts of northern Oklahoma County, will need the additional 20 million gallons a day in this area?

Mr. SULLIVAN. There's no doubt about it, no argument.

Senator NICKLES. Here again, trying to look out in the future, is there any other potential resource? You mention in Edmond where you rely on 42 wells, you're adding to some wells, but there's only so much groundwater, before too long you deplete that table. We're

going to work on trying to recharge that, but again there's only so much underground water that you can take out per year.

Is there any other alternative, any other reservoirs, any other potential, possibly importation by pipeline from other outside sources, that you can think of that might be more feasible, more economical, more sellable to your constituents, any suggestions?

Mr. REHERMAN. Senator, in response to that, as far as the city of Edmond is concerned, when we looked at the Garber-Wellington recharge abilities, and also what Lake Arcadia would be providing us, and the cost and such, we looked at some alternative provided to us by the Corps of Engineers, and in fact, moving water as Oklahoma City does, a great distance, and quite frankly, the cost of moving the water, plus treating it and such, was going to cost us more than building Lake Arcadia, and Lake Arcadia is an expensive project.

Senator NICKLES. Could you tell us the cost of it?

Mr. REHERMAN. Well, the original cost was around $99 million, but because of the conditions of lower inflation figures and estimates, and also the construction costs, as you alluded to earlier, with regards to contractors needing the work and such, we hit Lake Arcadia at a perfect time in its essence of building a project such as this. The cost is going to be considerably less than that, $89 and $90 million, so it's about $10 million.

Senator NICKLES. So you're paying about $90 million for about 11 million gallons a day?

Mr. REHERMAN. That and water sources, water reservoir. The city of Emond has to pay back 50 percent of the——

Senator NICKLES. They were allocated that portion. I might explain, M&I water, that is municipal and industrial water, is reimbursable, flood control is not reimbursable.

Mr. REHERMAN. To answer your question, the question of is there an alternative, according to the Corps of Engineers and their presentation to us, there is no suitable alternative.

Senator NICKLES. OK. There were a few other comments that were made. Mr. Maupin, I want to complement the city of Oklahoma City for, the long-range planning that you've had in the past. Without that foresight you wouldn't have the Atoka pipeline right now, you wouldn't have McGee Creek coming on line.

Is the city of Oklahoma City in pretty good shape right now? You're in good enough shape, to where you're selling water to the city of Guthrie, or will be, to help them meet their short-term needs. What's the demand outlook for Oklahoma City in the future? I'm even expanding that, I'm thinking of Del City, Midwest City, and some other areas where I've been involved in such as Thunderbird Lake and so on.

Is there a consensus, we've been dealing primarily with northern Oklahoma County, Logan County, Kingfisher County, but is there a problem on the southern side as well?

Mr. MAUPIN. Well, I should let Mr. Sullivan since he's the resident expert, but in general, I would say that the growth in Oklahoma City and the surrounding suburbs is going to be similar to that of what has been projected by Guthrie and the mayor of Edmond.

It's going to be fast growing, and the need and the demand is going to be there. I think we have a situation where we have an

additional source of McGee Creek coming on line very shortly, within the next 2 years, and I think that's fine and I think the people of Oklahoma City should be commended for their foresight back when they committed to that, but we need now to start thinking about what is our next step, because sooner or later the capacity of McGee Creek is going to be taken up.

Oklahoma City is a primary water supplier to suburbs, and if the Garber-Wellington does not produce as some hope it will, we see and we get inquiries occasionally, reluctant though they may be, for the city of Oklahoma City to supply water, and we will do that as long as it doesn't impact on our citizens, but I'd let Mr. Sullivan comment about that.

Mr. SULLIVAN. I might expand that just a little. Our reservoir updates for Oklahoma City indicate McGee Creek will probably be adequate to about 1995 to 2000, so we're looking at maybe 20 years, that depends on the growth, of course. Oklahoma City, as Tim has indicated, has made commitments to several communities.

For instance, Shawnee has tied in to the Atoka pipeline, and they are, in fact, acquiring water whenever they do come short of water, directly from the Atoka pipeline system. I think Oklahoma City's commitment to satisfy the people in central Oklahoma, if they can, without impacting their citizens is commendable.

Our investigations indicate that we are just definitely going to have additional water supply by the year 2000 at the very latest, to meet the growing demands of central Oklahoma. You asked about other alternatives, of course, we're rapidly approaching the capacity of that pipeline, you may be aware that it was originally designed for pumping facilities for 60 MGD capacity.

About 4 years ago we updated that and we now have 90 MGD capacity, but that's the total capacity of the system, the line can't take any more, pumps can't push any more through it. So the next big question comes, how are we going to convey water 100 miles or further, that means additional pipelines, canals, or something else.

So the only alternative we have looking at us right now is projects that we can develop here. One alternative that I alluded to earlier, and I think it's something that you need to think of in the future, you can't solve our problems today, but that is the Cimarron River.

We're looking at quantities of water running down the Cimarron River almost half of what the entire State uses. We use about 2 million acre foot per year for the State, and we're looking at almost 1 million acre foot a year runs down the Cimarron River, virtually unusable because of chloride problems.

Out north of Woodward, for instance, tremendous expense, and if we started today on it we couldn't use the water for 30 or 40 years, because it's going to be a long construction period plus we're going to be talking about 15, 20, 25 years for Mother Nature to flush the alludium out, so in fact the quality becomes possibly usable again.

So that's a long-range solution but by no means should we misconstrue that as being a short-term solution, an alternative for this project.

Senator NICKLES. I appreciate your comments and you're also aware, and I might make mention to other people, we have a similar problem with the Red River. There has been some effort made

to date, those working with the corps and some of the communities involved, have been pleased with some of the results they've had.

Mr. McFall, just a quick comment. I think you make a very good point when you say, yes, we have a lot of costs involved, and probably one of the most important costs is the impact on people. I would certainly echo your comments that if a project, and I would say any Federal project, or any State project for that matter, when you are talking about right-of-way, when you are talking imminent domain, that you should minimize the impact on people and quite frankly, in the past we haven't.

I can look at other projects where condemnation has greatly exceeded needed areas to a very large amount. This drove up the cost to the taxpayers, drove up the dislocation cost, and the pain that was imposed on a lot of people. Loss of tax revenue, you name it, there's a lot of things that are involved.

I just appreciate your comments, I also appreciate your comments and Mr. Sullivan's comments, about the need to make some tax changes concerning capital gains, particularly for people that might be in their later years, but for other people as well.

So all of your comments, by all of our panelists today will be considered. And we're going to have a lot of people today who will be testifying both for this project and against this project. I think that's good. That's what this is really all about, that's the reason why we're doing it here instead of in Washington, DC, or in some Federal courtroom in Oklahoma City.

We want to have input from local people and how it would effect them, what their comments are. A lot of you have been studying this project for a lot longer than Don Nickles has, and have insights that I think can complement this hearing substantially.

So I want to thank you for your participation, and, gentlemen, thank you for your statements today. Our next panel—and we won't have time to finish this panel, but we will be able to start it. We have Richard and Faye Terrill from Guthrie; we have Jack Davis from Oklahoma City; Jim Paddleford from Oklahoma City; Lou and Linda Rainey from Guthrie; and Bill Kinney.

Gentlemen and Linda, I announced earlier that we would recess at 12, and it's still my intention that we'll recess at 12, so we'll just break at 12 o'clock and whoever is next we'll just take that up at 1 o'clock, if that would be acceptable.

Mr. Davis you have the microphone and maybe we should start all the way down at the end and work our way down. You need to really speak right into the microphone so everyone can hear your comments. You might identify yourself, too.

STATEMENT OF JIM PADDLEFORD

Mr. PADDLEFORD. Senator, I'm Jim Paddleford, I'm a citizen and resident of the impact area of this project. I will prepare for submission today a written statement and make very brief comments in view of the shortness of time.

I think that something that the Senator ought to consider, and that perhaps the citizens who are in attendance here ought to consider is an item that is conspicuously absent from the testimony of the Oklahoma Water Resources Board and that of the Bureau of

Reclamation, and that is the existence of the Sardis Reservoir, which was constructed and the sale of water there has been insufficient, they had insufficient users.

The State of Oklahoma, with its present financial dilemmas and problems, paid out last year in excess of $415,000 to meet its obligation as guarantor on the construction cost of that reservoir. There is water available in Oklahoma, and what concerns me is facts such as this not being brought out openly by the proponents of this project. I will make other comments in a prepared statement and will be submitted subsequently.

Senator NICKLES. Thank you very much. Mr. Davis.

STATEMENT OF JACK L. DAVIS

Mr. DAVIS. I'm Jack Davis. The appraisal report for this project was not made available to Congress until 60 days after Public Law 94-156 was signed, and had that appraisal report been made earlier and an objective look made at this we wouldn't have the feasibility study offering this. There's no——

Senator NICKLES. Mr. Davis, back up just a little bit, I want to make sure I understand. Could you repeat that?

Mr. DAVIS. Yes. Everybody has testified about the appraisal study being favorable, and that was the basis for the authorization of the feasibility study. That's not the case. I have a letter from the Bureau of Reclamation in Washington, DC, that in effect, says, that appraisal report wasn't placed in the hands of the Oklahoma Congressmen until 60 days after Public Law 94-156 was signed.

Senator NICKLES. Go ahead.

Mr. DAVIS. OK. The final feasibility report that we need now, or even a draft of one is not available to the public, and furthermore, the aspiration of your personnel, the way I understand it, that there will not be a feasibility report made until—what they're hoping is that they can do that along with an advanced planning phase.

In other words, if public law—if your bill is passed, will go into the advanced planning stage then they'll do the feasibility study, and that's not the way to do a feasibility study. You need one before, so everybody can look at it to see if the reservoir really could be constructed.

What I'm really trying to say is, the first report was sneaked in after Congress acted, and here we're talking about a second report, we're trying to void or circumvent it, and pretty soon we're going to have a $270 million reservoir without proper justification.

If you look at what the results of the feasibility report up to date is, you find that they came out in 1981, when they decided the project wasn't feasible for a bunch of things. Only two communities, although they had the chance to talk to all these communities that need water now, they had that chance then, but only Edmond and Guthrie really chose to participate in that, and that's the reason they concluded that it wasn't feasible.

On January 30, 1980, Senator Boren stated:

> It's my understanding that there is currently no economic justification for this project. I have not, nor under current economic circumstances, will I support funding of the construction of the Seward reservoir.

Senator NICKLES. That was mentioned when, when did the Senator say that?

Mr. DAVIS. January 30, 1980. In April 1980 the Bureau wrote, I will read, they wrote, it indicated that there was going to be a concluding report that the project wasn't feasible to meet the shortened mid-term needs. It also said that there would be likely developed later to meet the long term, and long term is 50 years or more.

So not going back over everything that the Bureau's done, because they've really, basically, if you look at all their literature, they've really concluded what they have published that the thing is not feasible based on those reports of July and December 1980.

I really can't agree that they've done enough work to support construction of a reservoir. Let's look a little bit at ground water, though, that there is a development plan put out by ACOG and EPA, dated 1983, they estimate conservatively in that aquifer that there's 70 million acre feet that's equivalent to a 4-mile lake, 4 feet deep; and they estimate the annual recharge of 213,000 feet, and they think they could add to that by 10 percent.

Senator NICKLES. What was the drawdown, is it gaining or losing?

Mr. DAVIS. Well, it's full. In other words, the 213,000 feet is available without any drawdown at all, that's an annual recharge. There's a sentence in there I'd like to read, we've talked about up coning or saltwater intrusion, the sentence is: To date, all the known problem wells that have turned salty have done so due not due to salt intrusion or coning."

That doesn't mean that they don't need to be watched, monitored, and well spaced, but they haven't found any what you call——

Senator NICKLES. This is still based on ACOG's report?

Mr. DAVIS. Yes, sir; of 1983. I'm told that there are good well water sites in Guthrie, east of town. They are more difficult to find than in other areas, but one thing you ought to know is that Guthrie has ground water rights along a 10-mile quarter inside Oklahoma City, as the result of this lawsuit that was worked up between the two cities, so they have additional sites they can look at down inside Oklahoma City.

I sympathize with the citizens of Guthrie who have been flooding, but I don't believe the permanent flooding of 7,000 acres of bottomland or the taking of 150 homes is the way to solve, or will solve the problems of Guthrie with regard to flooding.

Senator NICKLES. Those homes, are those ones that would be in the reservoir area or are those ones that are along Cottonwood Creek?

Mr. DAVIS. Those are the homes in the project area. To say this project has an endorsement of the Oklahoma Water Resource Board is putting it mildly, because on April 21, 1981, as Mr. Smith indicated, they tried to head off the concluding report.

In failing that, they were able to put that concluding report on the inactive report on the shelf of the Bureau in 1983. If this is the No. 1 project of the future then Oklahoma has done an excellent and extraordinary great job of meeting all of its water needs and

should not require future projects, because this number one project is certainly not needed.

The Seward Reservoir is not a key feature of the Oklahoma comprehensive water plan in 1980, it is not part of the statewide water system. Seward Reservoir is not recognized by the 1980 plan for use by Oklahoma or Kingfisher Counties, the plan does state Seward would annually provide Logan County 14,500 acre feet of water for municipal and industrial use.

Current water resources itemized in the plan are sufficient to meet M&I water requirements through the year 2040 in the north central plain region, of which Logan County is a part. Just for a minute I'd like to talk about the endorsements and the resolutions for this project, other than Edmond and Guthrie, which by themselves cannot justify the project, according to the Bureau's finding.

ACOG, in 1973 requested Congress to authorize a feasibility study and include Seward in the ACOG 1970 water plan, was one of three alternatives to meet the area water needs. They dropped the Seward from their current water plans because Oklahoma City has more recently secured high quality water in southeastern Oklahoma.

Oklahoma City did sign a resolution for the feasibility study in 1972, but the Oklahoma City Council has not signed a resolution for the authorization of Seward. The best deal for Oklahoma City and Guthrie would be for Oklahoma City to furnish Cuthrie with water, like a pipeline, much like Dallas, TX, does their surrounding communities.

While we're talking about resolutions of support, it's one thing for a community to sign a resolution for an artificial cry of help, but it's another thing when that community has to pay what they're asking. For example, in this case one community signs a resolution on May 19, 1981, but less than 30 days later refused to put a few dollars in the pot to operate and maintain the gating station, because of, "the lack of any direct benefits or indirect benefits".

Senator Nickles, I think you should require the representatives from Guthrie, Edmond, the Village, Piedmont, Kingfisher, Midwest City, Yukon, Deer Creek Rural Water Corp. and Rural Water Seward & Solid Waste Management No. 1, in Logan County, because these are the ones that signed the resolutions, before they leave this hearing today to state the dollars or percent their community is willing to pay on the $270 million.

The board should state the number of dollars they're prepared to ask the State legislature to let them spend on this project for other than water storage. The point that Mr. Paddleford brought out, they should—because we're concerned about paying for storage until water users come on line for a project.

I think if you'll—the real need for the reservoir would come apparent after you add up the total dollars that the asking communities and board are willing to put up on the total $270 million. In conclusion, this reservoir should not be authorized.

All studies accomplished to date fail to show it cost effective. Why have another expensive study, what has changed since the last study? The only thing I know has changed is the intense zeal by which the board is trying to do their job, without looking at

facts objectively, and are who are insisting the reservoir be constructed regardless.

In 1972 the board asked Congress to authorize a feasibility study, the board at that time was aware of the potential for well water but was unsure of its quality. The feasibility study was authorized, funded, and accomplished, and it concluded that Seward Reservoir was not needed until 50 years or longer, and maybe never.

If Senate bill 2098 is passed, the third and final step will be taken without proper justification. The appropriations will fall automatically, because the project will have become authorized.

Senator Nickles, I believe you've been handed a project by the board which looks good on the surface, but which is not needed for M&I water, flood control, or recreation, and I urge you to withdraw that bill from consideration by your committee, and I think you will after you look into the facts of the case. Thank you.

[The prepared statement of Mr. Davis follows:]

Comments Submitted at the Hearing
On Senate Bill 2098, Seward Project, OK
Conducted January 10, 1983 at Guthrie, OK
By The Honorable Don Nickles, United States Senator

Senator Nickles -- I intend to use your introduction of Senate Bill 2098 as an outline for what I am going to say -- if you care to follow.

The Appraisal report for Seward was not available to Congress until 60 days after Public Law 94-156 was signed into law. Had the Appraisal report been made available earlier and a objective review made, Congress would not have authorized the feasibility study.

There is no final feasibility report or even a draft of one for public review. Furthermore, "a feasibility report is ((not)) nearing completion at the regional level." It is the aspiration of Bureau of Reclamation personnel to prepare the feasibility report as part of the advanced planning phase if Senate Bill 2098 becomes law. An-ater-the-approval study is seldom objective to say the least.

What I am really saying is -- the first report was sneaked in after Congress had acted; ~~in without anyone taking a look;~~ and here we are trying to avoid by circumvent a second report; and soon we will have a $270 million reservoir that was never properly justified!

.....

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Let's consider the preliminary results of the feasibilty report which have been reported to be "very encouraging" and have "a prepondence of benefits" over costs.

The feasibility investigation was started in January 77. The October 79 status report stated, " ... feasibility investigation is progressing well ... The Bureau has ... rescheduled the investigation to be completed in fiscal year 1981 ..."

Several special studies were completed including recreational benefits versus the annual cost of $.5 million to operate and maintain recreational facilities. However " ... an inventory and analysis of prime farmland within the project boundary was not accomplished ..."

The 400 page Social and Economic Assessment report stated among other things, "Relocation impacts on individuals and families are expected to be severe. Anxiety and stress will likely result, and hidden uncompensated costs may occur." Those of us who have attended recent neighborhood meetings can attest to the fact that anxiety and stress ~~for persons living within the project boundary~~ is here now for some individuals -- even though relocation is several years away. Most residents are convinced that they are giving up their homes, lands, and jobs for worthless one last a project that is not needed.

But getting back to the feasibility investigation --

Public meetings were held, at which time individuals opposing the project always outnumbered those in favor of it. Means and methods to increase public support [redacted] were discussed in plan formulation meetings. "... only two communities ... expressed a definite interest ... in the proposed project ... It was therefore determined that the investigation should be discontinued, and that a concluding report should be prepared."

Former U. S. Senator Bellmon stated in a letter dated January 30, 1980, "... It is my understanding that there is currently no economical justification for this project ... I have not, nor under current economic circumstances will I support funding of the construction of Seward Reservoir."

On April 11, 1980 the Bureau at Amarillo wrote to Senator Boren and said, "... The Seward Concluding report, to be completed in December 1980, will tie all current data together and will conclude that Edmond and Guthrie have secured other sources of water to meet their short- and mid-term needs. the report will also indicate [redacted] that the Seward Project ... will likely be developed at a later time to meet the area's long-term needs." The definition of long-term is 50 years and longer.

The conclusions of the preliminary draft of the July 1981 Concluding Report on Seward project were:

1. "... the water-related needs of the two communities expressing a definite interest ... were insufficient to justify continuing the feasibility investigation."

2. "The Seward Project feasibility investigation should be discontinued and reexamined when additional communities with sufficient water needs have expressed a definite interest ..."

3. "Of the three damsites studied ... the Navina Site is the most cost effective and practical ..."

4. "Reservoir flood control facilities are not economically justified ..."

5. "Any potential water supply from ... Cottonwood Creek would probably require pretreatment measures ... due to ... eutrophication and oxygen depletion ..."

6. Benefits derived from recreation and fish and wildlife enhancement would not justify a reservoir without other purposes such as M & I water. [rearranged quote]

The December 1981 Seward Project Report [redacted] states, "Since a specific water user was not established, benefits for the project could not be developed."

With all respect, Senator Nickles, I cannot agree that studies conducted by the Bureau can be used as valid reasons for supporting Senate Bill 2098!

Let's look at ground water. In 1977 the U. S. Geological Survey accomplished A Preliminary Appraisal of the Garber-Wellington Acquifer, in response to a request from the Bureau. This preliminary appraisal was excellent in many aspects; but let's examine more current information.

The Association of Central Oklahoma Governments' and the Environmental Protection Agency's 1993 Development Plan for the Garber-Wellington Acquifer estimates conservatively, the fresh water stored in the acquifer to be 70 million acre-feet. Visualize it if you can - a fresh water lake of 2800 square miles with an average depth of 40 feet! The annual recharge alone can supply 213,000 acre-feet; [redacted] and [redacted] methods can be developed to increase that by 10%. The ACOG/EPA plan calls for development, management, and monitoring the acquifer. It further states, "To date, all of the known problem wells that have turned salty have done so due to improper well completion." i.e. not upconing or salt-water intrusion.

Sites for good water wells [redacted] in the Guthrie area are more difficult to locate than in other areas but they can be found east of Guthrie. Guthrie also has this ground water rights along a 10 mile corridor outside of Oklahoma City surrounding the water pipeline to be built from Oklahoma City to Guthrie.

With regard to flood control for Guthrie, the Bureau in their July 81 report stated, "... Major floodflows on Cottonwood Creek were found to be so fast peaking that it would require an unusally large volume of flood control storage in Seward reservoir to provide the level of protection anticapated by the city's engineers. The cost of providing that volume of storage would be prohibitive... "

The December 81 Bureau report concludes, " ... alternative means to provide the needed flood protection were studied without identifying a feasible solution ..."

I noticed in the Guthrie Daily Leader newspaper recently that Guthrie's City Manager, Dan Ward, is quoted as saying, " ... The Seward project will not stop the flooding. Hopefully it will reduce it. But that water is going somewhere and still run off into the creek."

I sympathize with the citizens of Guthrie who have been flooded but I don't believe the permanent flooding of 7,000 acres of bottom land and destroying 150 homes is the way to solve - or will solve - the flooding in Guthrie.

To say, "This project has received the endorsement of the Oklahoma Water Resources Board ..." is putting it mildly. The Board called a meeting on April 21, 1981 with the Bureau and local water officials to try and head-off the concluding report. Failing this, the Board was successfull in getting the concluding report put on the Bureau's inactive shelf in Washington, D.C. If the Seward reservoir is the Board's "... no. 1 project for the future ..." - then Oklahoma has done an excellent and extraordinarily great job in meeting all of its water needs and should not require future projects because this no. 1 project is certainly not needed.

The Seward reservoir is not a key feature of the Oklahoma Comprehensive Water Plan of 1980. It is not part of the proposed Statewide Water Conveyance System. ~~It is not~~ Seward reservoir is not recognized by the 1980 plan for use by Oklahoma or Kingfisher counties. The plan does state, "Seward would annually provide Logan County with 14,500 acre-feet of water for municipal and industrial use." Current water resources, as itemized in the plan, are sufficient to meet M & I requirements through the year 2040 in the North Central Planning Region, of which Logan County is a part.

Let's examine the endorsements or resolutions of support for other than the two cities of Edmond and Guthrie which by themselves cannot justify the project according to the Bureau's findings.

ACOG - who in 1972 requested Congress to authorize a feasibility study - and who included Seward in the ACOG 1975 Water Plan as one of three alternatives to meet area water needs - has dropped Seward from their current water plans because Oklahoma City has more recently secured high-quality water in southeastern Oklahoma.

Oklahoma City signed a resolution for a feasibility study in 1972; but the Oklahoma City Council has Not signed a resolution for the authorization for Seward reservoir, [redacted]. Futhermore, The Oklahoma City Council has no intention of signing such a resolution in the future because Oklahoma City has no use for water in the reservoir. Frankly - Oklahoma City, and I use the term to mean our elected officials and the general public, are a little leery at this point to do anything which might polute Guthrie's drinking water. The proposed project will carry the effluent from the Deer Creek [redacted] treatment plants around the reservoir; but what happens during unexpected power outages or periods of heavy rain? Wastewater from the Deer Creek plants will find its way into the reservoir. Thus Oklahoma City will again be faced with a law suit. The best deal for both cities would be for Oklahoma City to furnish Guthrie with water via a pipeline like it does for several other communities - and much like Dallas, TX which furnishes all of its surrounding communities with water except Fort Worth. The out-of-court settlement of a recent law suit between Oklahoma City and Guthrie is a good step in this direction.

While we are talking about resolutions of support, let's talk about cost sharing and contributions. It is one thing for a community to sign a resolution for [redacted] cry of help; but it is another matter when that community has to pay what they are asking for. Example - One community signed the Board's manufactured resolution on May 19, [redacted] 1981; but less than 30 days later, refused to put a few dollars in the pot to operate/maintain a gaging station because "the lack of any direct or indirect benefits."

Senator Nickles, I think you should require the representative from Guthrie, Edmond, The Village, Piedmont, Kingfisher, Midwest City, Yukon, Deer Creek Rural Water Corporation, and Rural Water Sewer and Solid Waste Management # 1 in Logan County -- these are the communities that signed [redacted] resolutions of support [redacted] -before they leave this

Hearing today, to state the dollars or per cent their community is willing to pay on the [redacted] $270 million project.

The Board should state the number of dollars they are prepared to ask the State Legislature to let them spend on the project for other than water storage. The Board should also state the number of dollars by year they will be spending for storage until enough water users come on line to pay all storage costs. The people of Oklahoma are very interested in these dollar figures in-as-much as they don't want another white elephant like the Sardis (Clayton) reservoir that requires Oklahoma to pay $.4 million each year for storage of water that is not being used.

.....

Senator Nickles, the real need for the reservoir will be made apparent, after you add up the total dollars that the Board and the asking communities are willing to commit themselves for.

In conclusion -- the Seward (Navina) reservoir should not be authorized. All studies, accomplished to date, fail to show it to be cost-effective. Why have another expensive study? What has changed since the last study? The only thing I know that has really changed, is the intense zeal with which the Board is trying to do their job without looking at facts objectively -- and who are insisting the reservoir be constructed regardless.

In 1972, the Board requested Congress to authorize the Bureau to make a study on ground and surface water to insure future needs of the area were met. The Board at the time was partly aware of the potential of ground water but was unsure of its quality. A feasibility study was authorized, funded, and accomplished. It concluded that the Seward reservoir was not needed until 50 years or longer and maybe never. If Senate Bill 2098 is passed, the third and final step will be taken without proper justification. Appropriations will follow automatically because the project will have become authorized, ~~and studies will reflect pseudo needs similar to the first appraisal report.~~

Senator Nickles, I believe you have been handed a project by the Water Resources Board that looks good on the surface, but which is not needed for M & I water, flood control, or recreation. I urge you to withdraw Senate Bill 2098 from consideration by your committee; and I believe you will after looking into the facts of the case.

Thank you!

Jack L. Davis
2730 N. W. 34th. Street
Oklahoma City, OK 73112
phone (405) 942-4610

The references and materials hereby submitted, are for purpose of substantiating the comments I submitted on January 10, 1984, at Guthrie, OK, at the Hearing on Senate Bill 2098, Seward project, OK, conducted by The Honorable Don Nickles, United States Senator from Oklahoma.

Request this information be added to my previous testimony and be made part of it.

Some of the material on the Garber-Wellington acquifer is in response to questions by Senator Nickles at the hearing.

The comments, previously submitted on January 10, 1984 were inadvertently not signed but I hereby declare them to be true to the best of my knowledge.

Jack L. Davis Jan. 16, 1984

Jack L. Davis
2730 N. W. 34th. Street
Oklahoma City, OK 73112
phone (405) 942-4610

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References outlined in previous comments are not included here.

Abbrevations: BR - Bureau of Reclamation
Board - Oklahoma Water Resources Board
conv - conversation(s) with

Page 1.

Appraisal report to Congress - BR (DC) ltr Jul 1, 1977

feasibility report not nearing completion - conv BR (OKC) Nov Dec 9, 1983; conv BR (Amarillo) Jan 13, 1984

Page 3.

"... concluding report should be prepared." - BR Concluding Report (draft) July 1981

Long-term is 50 years and longer - Conv BR (Amarillo) Jan 6, 1984

Page 5.

See addl attach material on Garber-Wellington

Guthrie's ground water rights in OKC - OKC-Guthrie Settlement Agreement Apr 19, 1983

Page 7.

Board called meeting Apr 21, 1981 - BR Concluding Report (draft) July 1981

Board getting concluding report put on BR DC inactive shelf - conv BR (Amarillo) Feb 4, 1982; BR (Amarillo) ltr, May 17, 1982

Seward reservoir not a key feature, etc - pg 139 - 147 of OK Comp Water Plan, 1980

Page 8.

ACOG has dropped Seward because - conv ACOG Dec 29, 1983

OKC Council not supporting Seward - conv OKC Council Jan 4, 1984.

Page 9.

"... lack of benefits ..." - City of The Village ltr Jun 22, 1981.

Page 10.

Sardis (Clayton) - $.4M - conv Governor's Office Jan 6, 1984

VOL I - ACOG/EPA DEVELOPMENT PLAN

VI. FUTURE DEVELOPMENT AND MANAGEMENT

This section presents the technical activities recommended for continuing the development and management of the Garber-Wellington Aquifer. Non-technical considerations such as legal, political, and economic are discussed in other reports of this series.

A. Water Supply Potential

1. Volume Stored

The additional water supply that can be developed from the Garber-Wellington Aquifer in the ACOG area is enormous. The volume of fresh water stored is estimated to be about 70 million acre feet. This estimate is based on data from two previous USGS investigations and from data collected during this study in the unassayed recharge area of the aquifer. The volume of water available from storage is estimated by multiplying the area, one-half the thickness of the fresh-water zone, and the specific yield. Because of the lack of data in the recharge area, the storage in this part of the aquifer could only be roughly estimated. The overall estimate is however, considered to be conservative. The reservoir underlays approximately 2800 square miles. To visualize this large amount of water consider the following: If you excavated all of the sand and clay particles from the reservoir and left only the fresh water, you would have a lake of

2800 square miles with an average depth of about 40 feet.

2. Recharge

The latest recharge estimate developed as part of this study (see Section IV B.1) is 213,000 acre feet per year.

3. Present Withdrawals

Present municipal withdrawals reported by ACOG member cities is about 30,000 acre feet per year. Individual wells serve an estimated 21,000 people in the region corresponding to about 2,000 acre feet annually. Industrial use from private wells has not been surveyed as a part of this study and should be accomplished as the study continues. However a reasonably high estimate would be 10 to 15 MGD (11,000 to 17,000 acre feet per year). Therefore the total present withdrawals are estimated to not exceed 50,000 acre feet per year.

4. Additional Capacity

That portion of water that can be withdrawn economically and safely, from an environmental point of view, has not been determined. Development of that figure remains a most important long term objective of the entire Garber-Wellington management planning effort.

a. refine the potential yield. (e.g. if the yield is 100,000 or 300,000 acre feet/year, at 50¢/1000 gal., the corresponding value ranges from $18 million to $54 million per year.)

b. prevent improper development or land use that would damage the quality of the resource.

c. implement mechanisms to protect the recharge area and prevent reduction of the recharge in the future.

d. Consider and evaluate methods to economically enhance the recharge. For example, a 10% increase in the recharge rate would represent about $3.5 million/year in benefit at 50¢/1000 gal.

e. Expand or extend the use of the resource through optimum development and improved conjunctive use of all of the region's water resources.

Planning for future optimum use of the Garber-Wellington Aquifer is inexpensive. Consider that the recharge alone can supply 213,000 acre/feet per year in perpetuity. Fifty years of this potential supply is 3,500,000,000,000 gallons. If one penny per 1000 gallons were committed for planning and management, the expenditure would be $35 million. When originally conceived in 1978, the "bare bones" management plan development effort was estimated to cost $5 million

Should we deplete 10% over 100 years, 30% over 50 years, or not deplete at all? The depletion factor should be agreed upon by member cities and set out in the management plan. Some minimal rate may be most acceptable. For example, a small depletion rate of 10% over 100 years, plus the capture of 75% of the recharge, corresponds to a total yield of 230,000 acre feet per year (210 MGD) which is over four times the present withdrawals. Further it is about six times the total additional ACOG water needs as projected for the year 2000 in the ACOG Regional Water Plan published in 1975.

5. Support for Continued Planning

Admittedly the additional capacity figures are not as accurate as will ultimately be needed. But they will suffice for the next few years. The primary importance of the estimate now is in the fact that the aquifer is large and represents enormous wealth to the region. The worth of the aquifer might be evaluated in terms of the cost to import water or develop alternative sources. At 50¢ per 1000 gallons the 230,000 acre feet/year potential yield represents $37,000,000 per year. The dollar figures are used to emphasize that it is very important to continue research, development, and management that will:

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4. Pipelines and Storage

Changes in the pipeline and storage can also effect the quantity of water that can be produced by the well field. For example, if the pipeline from the well field to the storage tank becomes incrusted then the resulting added friction loss will decrease the amount produced by the pumps.

Another mistake is adding more wells to an old well field collection pipeline without checking the capacity of that pipeline to carry the additional flow. This can result in increasing the back pressure on the existing pumps thereby reducing their capacity.

A third example is constructing a new storage tank at an elevation that places unplanned back pressure on existing pumps. This of course will reduce the capacity of the old pumps.

The pumping test recommended in Appendix C can also be used to determine accurately the actual rate that the pump is delivering water under operating conditions into the system, and whether changes in the pipeline and storage system have occurred since the last pumping test.

Failure to understand the principles of and the interrelationships between these four components of a

ground water supply system leads to inefficient operation at best and gross waste at worst. We (Engineering Enterprises, Inc.) were once contacted by a city undergoing a severe water shortage to solve their problem by constructing more wells. Upon conducting a field examination of their existing facilities we found worn pumps, encrusted pipelines, and excessive head losses due to too many wells on the collector pipeline. Within a few weeks the problem was solved not by adding new wells, but by understanding and adjusting the existing system.

In summary, the well field management and record keeping system implemented under this project for the cities using the Garber-Wellington Aquifer will not only save substantial money for those cities making full use of the system, but also will provide the essential historical data upon which future planning can be done with confidence. It is strongly recommended that these procedures be strengthened and carried out by all of the municipalities and other major users of the Garber-Wellington.

water filling the voids in the upper part of the formation and salt water filling the voids in the lower part.

This existing condition results in two potential problems: (a) improper well construction--i.e., completing wells too close to or into the salt water, and (b) upconing caused by overpumping the fresh water to such an extent that the underlying salt water is allowed to move up into the wells. To date, all of the known problem wells that have turned salty have done so due to improper well completion.

The salt water sands, in most cases, have a lower piezometric surface than the fresh water sands. As long as this fact holds true, then upconing of salt water into the fresh water zone is not likely. Disruption of this vertical gradient as the result of heavy, concentrated pumping could provide the mechanism for salt water upconing. This possibility would exist if the piezometric head of the fresh water were lowered below the piezometric head of the salt water. This potential problem has been recognized for some time, and concern has been expressed particularly in areas of major pumping where significant cones of depression have been delineated.

Test drilling completed during this study provided the opportunity to address this particular concern. Three sites were selected, within areas of major pumping, to determine if salt water upconing had occurred. The criteria used for selecting sites to evaluate salt water upconing were that they be located near the deepest area of the cone of depression and that they have an historical delineation of the fresh water/salt water interface.

Test drilling revealed in every case that there has been no noticeable movement of the interface and that salt water upconing has not occurred. Monitoring wells specifically designed to detect possible occurrence of upconing in the future were installed in these areas. The wells were constructed with three individual piezometers located in the borehole at discrete depths. Hydraulic communication between piezometers via the borehole was blocked by grouting. Monitoring both the piezometric surface fluctuations of the brackish water zones versus the fresh water zones and any abnormal increases in chloride concentrations will provide a method for detection of upconing. An evaluation of all test

drilling and monitoring well construction activity and the specifications for well construction are presented in the appendix.

The potential for salt water upconing is restricted to a large degree by intervening shale layers that separate fresh water sands from salt water sands. In many cases these shale layers are thick with very low hydraulic conductivities and serve as sufficient aquitards for salt water intrusion. However, the discontinuity of intervening shale layers may, in some instances, provide a more direct hydraulic communication between fresh and salt water. Therefore, the possibility of salt water upconing must be closely monitored.

c. Trace Elements

It has recently been noted that anomalous concentrations of some inorganic trace elements may be found in localized areas of the Garber-Wellington. Specifically, trace uranium, selenium, and chromium have been measured. The occurrence and behavior of these trace elements are dependent on the ground-water hydrochemistry, which in turn is controlled by interactive processes involving lithologic, chemical, and biologic variables.

Senator NICKLES. Thank you Mr. Scott, I appreciate your input. I might—excuse me, Mr. Davis, I apologize. I don't know why I called you Mr. Scott. I've been called a lot worse too. Anyway, I do appreciate your input, you had several things that we might address, or have other people address some of the comments that were made.

I might make mention, just to correct one last statement, a lot of projects are authorized that still—there's a lot of times there's a big difference between authorization and appropriation. I can tell you that from the short time that I've been in the Senate, we have lots of projects that have been authorized that have never been funded.

That could happen here, I'm not saying that it would or would not, I'm just saying that it's not automatic just because something is authorized that it's also a forthcoming appropriation. It's a step, a necessary step, that is—well, it's been circumvented at times past.

Sometimes an appropriation is just passed, but for the most part the project would be authorized by an authorizing committee, of which I'm a chairman, but then the money would be coming forth from the appropriations committee, and that's actually a different step that would be taken at a different time.

It's 12 o'clock, if we could, would it be possible for all of you to rejoin us at 1 o'clock? We will begin sharply at 1 o'clock and take off from there, and then we'll ask questions. Would it be possible, both Mr. Paddleford and Mr. Davis, for you to return? We might have a couple of questions, too. So we'll adjourn until 1 o'clock.

[Whereupon, a luncheon recess was taken.]

AFTERNOON SESSION

Senator NICKLES. It's 1 o'clock and I want to thank everybody, particularly our panelists, that hopefully maybe had a chance to get a bite to eat. I appreciate you coming back and being on time.

I think at this time we'll just go ahead and proceed down the table and go through, and then I'll have some questions at the end of the panel, go ahead.

Mr. KINNEY. First, we're glad——

Senator NICKLES. You might identify yourself.

STATEMENT OF BILL KINNEY

Mr. KINNEY. I'm Bill Kinney, southwest of Guthrie. My occupation is strictly farming and ranching, I have no other income except as such. We're glad that you chose to come down to be with us, we feel like at least we're getting a fair representation this way, whatever the outcome.

To begin with, I went this morning through this appraisal study that they put out in 1974 on the Seward project, which has probably been updated and I don't have all the update on it, but it's something to think that they started out in 1974 with $42 million and today they're up to $270 million for the same project. Talk about things escalating, what happened to our farm prices in all that time?

Senator NICKLES. You didn't see them go up?

Mr. KINNEY. I hadn't seen them go up. OK. To get down with it, agriculture is a leading industry in this area, and Logan County is—I'm talking about as a whole, where the reservoir is going to be, needless to say, it is an agricultural area.

Roughly, there's about 1,600 acres of excellent bottom ground that's going to be taken out, 4,000 acres of upland crop land, about 4,400 acres of pasture land, all minerals and production will be done away with in this area.

The bottom land is used mostly for production of alfalfa and other hay crops, and small grains, it is very fertile, productive soil. They haven't said anything about the food down the line or anything, they've been talking about the need of water down the line, but I haven't heard anybody saying anything about the need of crops down the line.

If there are any farmers left in the next 20 years to produce it, I'm sure they're going to need some production. On the flood control, the Cottonwood Creek has not flooded since the flood water retardation structures have been built, and with this I'm talking about back in about 1960 or 1958, somewhere along in there.

The soil conservation came up with a plan of putting flood prevention locations out on the watershed area of the Deer Creek and Cottonwood watersheds. There was about 19 or 20 of these completed on the Cottonwood side. If I'd have gotten to this before dinner I would have offered, if you'd have liked to bypass your dinner, to take you out here about 5 miles southwest of town to show you two of them; but it's—I say small dams, I don't know, 10, 15, 20 acre feet structures, but Cottonwood has not flooded since they put it on the Cottonwood side.

Deer Creek, the ground was too high, they said they couldn't go in. They either had to forcibly take it, they wouldn't volunteer to give it, there were no dams put on it, to my knowledge, on the Deer Creek side, so Deer Creek is flooding.

I feel like that what I'm talking about is going to have a little bit of knowledge to it, I have lived where Deer Creek dumps into Cottonwood from about 1946 until 1980, I have a pretty good idea of what's going on.

Senator NICKLES. So you've lived where Deer Creek runs in Cottonwood?

Mr. KINNEY. Into the Cottonwood, yes, sir.

Senator NICKLES. South of that intersection Cottonwood has not been flooding?

Mr. KINNEY. No, sir, west of this intersection. Cottonwood comes from the east to the west, Deer Creek comes from the southeast to the northeast.

Senator NICKLES. Deer Creek has been flooding but Cottonwood to the west has not been flooding?

Mr. KINNEY. That's right. You go up above 74 Highway and there is no flooding, it's full, but through these detention dams it was originated that it would be full till the drawdown got there and then it would be down for the next raining.

Now, there's one rain came, if we got this 11 inches of rain today and tomorrow we got another 8 inches, then we all know, just like we're talking about this Seward Reservoir, it's going to be full, it's not going to do anybody any good then; but these detention dams

are so worked that they have drawn down to where there is no flooding on the Cottonwood.

Deer Creek is the one that's giving Guthrie all their problems right now, Chisholm creek included, but Deer Creek is the source of it.

Senator NICKLES. Chisholm Creek is also a significant factor?

Mr. KINNEY. Yes, sir. I lived—after 1974, when I talked to the Bureau of Reclamation man and he told me that Chisholm Creek was taken out of the flood control plan, I built a house in 1980 and I went to the Chisholm Creek.

I own property on both places, I went to the Chisholm Creek because I felt like that it might be a place that I could live, which today it looks pretty good, considering the way that things are going; but nevertheless, of these 58 structures that were originally planned, roughly 20 have been completed.

I'll say if we're wanting to stop flood from coming into Guthrie and doing away from the recreational part, we can complete a bunch of these dams and we'd be stopping a lot of this flood control, or putting in a lot of flood control that they don't have control of now.

To me, I feel like that was probably the downfall of the situation was when they stopped the detention dams. That's my personal opinion, like I said, I have been there. I've got to say on the records that I can't say that I'm against the dam and I can't say that I'm for it, because I have had a lot of loss with the floods coming through.

This October like to cleaned me out. I'm used to it, I figure on it, I go back and I plant again. As far as the people in Guthrie are concerned, if they would just part this area west of the viaduct for two or three blocks out of there, they could do away with a lot of money that they've been refurbishing them with every year they have a flood.

They could plan a little planning like the farmers do, I think it would simplify a lot, but that's their idea against mine. The recreational part, according to the appraisal report in 1974 by the Bureau of Reclamation, this is the utmost interest and the highest need for the Oklahoma City area, and that's on page 15 of the blue Seward project book, it's there.

I would like to say farming is also an industry to me. You're a small businessman, I feel like we're both of an industry of one shape or another, and I also feel like that we need to be considered as such, instead of somebody coming in saying go relocate.

To give you an idea of where I'm at, my operation goes all the way around the area and when they take this out that's in the flood plan, my plan use or needs is going to be to zero. I use this ground for hay production, it is very high in alfalfa, whatever, feed grain or hay.

I run cattle. I'm going to have to go somewhere else now and run my hay because I'll be out of hay ground, and I don't know of anyplace up or down the creek that I'm going to go because it's already taken; and if I go 50 miles from here, how am I going to be able to go back and forth from my operation here and up there.

To me, It's going to be a tremendous loss. I'm going to have to do a lot of changing in my plans. Maybe it would be better if I just sell everything out and move somewhere else.

I've got some questions, after listening this morning, the way that we're going to have roughly 20 million feet of water if this dam that's proposed goes in, how many cities are going to get to use this little trinkle of water? Boy, they're not talking about much water.

I've lived there on Deer Creek and Cottonwood all my life, and you take July and August and it don't even run if it wasn't for these sewage plants going into it. Another thing is, they talk about this water being pure, and, boy, my cattle will walk a mile to go to a pond to drink instead of drinking out of this water right now.

Senator NICKLES. The water that is coming out of the treatment plant?

Mr. KINNEY. Yes, sir, and they dump this other plant over to Chisholm Creek that they're talking about, the smell is going to run the people out, it's almost unbearable now; and they say it's under good control. I'm telling you some of the things that's happened to me.

To me, recreation is a sore spot with the farmers. Now, they're proposing a big recreation area around this, naturally the people are going to be kind of up in the air over it when they're looking at their good ground going out for the people to come out to boat and play and fish on.

They don't care about our industry, they don't care about our livelihood down the line. Pardon the saying, but the Bureau of Reclamation has always stressed recreation, they deem it very high on their appraisals. If you read your documents, why, it will come out as such, and I'm sure against the recreational part.

If it was a needed flood prevention I'd be for it, I'm not against moving on down the line. I feel like that if it would take care of it fine, but it's not going to stop their flood. When you get as much water as we got in that area coming down there now, that dam is going to be the laughing stock of the county when it's there.

It's not going to stop Guthrie from flooding, they're still going to have their floods. It may give the sportsman or somebody else something to do, but I guarantee you it's not going to stop their flood. That's about all I have to say, Your Honor.

Senator NICKLES. Thank you, Mr. Kinney.

STATEMENT OF RICHARD TERRELL

Mr. TERRELL. I work for an oil company, but I'm here because I have a house and 20 acres that is going to be in the lake right-of-way. It's going to be used for lake right-of-way and recreation, and I oppose it for this reason, of course, but my wife and I hunted 2 years to find somebody in the Cashion area that would sell us more than just 1 or 2 acres or a city lot.

We spent every weekend and it looks like we're going to have to start hunting again if this thing passes, but I have some other reasons for opposing it. One reason is, we have a huge Federal deficit, President Reagan is constantly stressing we have to cut that deficit, I don't think anybody disagrees with that.

Well, right here is a way to cut it $270 million, or keep it from going up another $270 million. As Bill said, and Mr. Peck, too, you know, this will not stop the flooding in Guthrie, but even if it would, the property that's taken for the lake, I think will far exceed the value of the property in the flood plain.

There's 150-some-odd houses out in that area, and as the Bureau said, when they run these studies in 1977 there was 50 houses out there, so that means that since 1977 there's another 100 been built out there.

I think if you'll drive across the viaduct here and look at these houses in the flood plain where these people have been living there, some of them for 75 years, I think you could buy those houses and relocate those people here in town on city lots a whole lot cheaper than Bill can relocate his operations, and these other guys.

As I said, there would be 150 families, approximately, displaced, and with 150 families, all of us looking for some more land to buy, that's going to increase the property prices in that area tremendously, and of course, as you well know, the Government pays fair market value not replacement cost.

This would be especially hard on the elderly people. We have some people out there that have lived there since statehood and some of them longer. I talked to one gentleman up there in Navina. He told my son that he lived there when there was five trains a day come through there, and I think that's been a while back.

The lake, of course, as they said, will remove about 14,000 or 15,000 acres of land from its tax rolls, that itself is going to hurt the schools and the counties. I know sometimes, you know, they pay impact aid, but that doesn't last forever.

Also, the only way that the county is going to make—the county is going to have to make this much, and the State, too, and the only way that a county can do that would be to increase the property values, increase the property values of the people left out there; because they're going to have to pay for the increased law enforcement and road maintenance.

Even though the Agencies will maintain the lake area, they're not going to maintain the access roads getting into it or around there, and also, yeah, they're not going to maintain those. As you well may know, the county governments are strapped now.

According to my county commissioner they can barely afford fuel for the roadgraders, and as far as the State of Oklahoma picking up part of the tab for this, they're telling us now that teachers will probably be laid off, they're talking about laying off highway patrol, our legislators are talking about taking a pay cut, and I really don't think that the State can afford to, and I don't think they would.

You know, they're going to end up holding the sack on some of this and I really don't think they can afford it. Also, there's a lot of oil wells in that area and we're going to lose gross production tax from these oil wells. We're also going to—the Federal Government is going to lose windfall profit, because I believe Mr. Peck said the other day, the Bureau's policy was to go in and plug those wells.

As far as problems for the community, well, due to the location of Oklahoma City, we'll have an increase, probably in drinking, drunk driving, trash, litter. In the paper last summer they were having trouble with transients living in the Thunderbird area, they were haggling over whether or not to let them in the school or stuff.

Well, being this close, we'll have trouble with that. Also, I think we'll have trouble dealing with undesirables. I know Oklahoma City had a real problem with this around Stars and Stripes Park. The rest stops, as most of you all come down I-35, and over here at Guthrie have been padlocked and have a fence around them and they lock them at night, because of the undesirables from Kansas and Texas meeting up here at Guthrie.

Senator NICKLES. I'm glad you mentioned there weren't any Oklahomans involved in that.

Mr. TERRELL. Well, this was a problem that the Daily Oklahoman and the newspapers reported that, because this was a central location, and this is going to be off the beaten path, there's trees and stuff out there; but Logan County, they don't have the money to handle the increased law enforcement and things like that.

Also, Mr. Kinney pretty well covered, you know, his farming operation. I think that's pretty typical of most of them, but these people will be unable to buy other farms. I mean with that many acres if you stayed in Oklahoma you're going to have a hard time finding the kind of operations some of these guys have, so these guys are going to have to accept cash for it and go out of business and pay their 50 percent capital gain.

Senator NICKLES. Twenty-five percent.

Mr. TERRELL. Well, whatever, but then if they leave their heirs cash instead of land, there again, the inheritance tax is higher on cash money than this is on land. If their kids continue to farm it, it's a lot cheaper but ones that really have it lucky is the poor farmers out there that's just renting land, because all he's going to be left with is 2 years to go on a 5-year note on his tractor and a whole lot less land to farm.

Also, as far as water for the cities, as Oklahoma City said, you know, they have quite a few lakes around there, they have Elm Creek, that they haven't built yet, and they haven't really talked like they were interested in it, and Edmond has the new Arcadia Lake, Guthrie had a chance to build Bear Creek, and I think they acquired some of the land and they voted on the sales tax for that purpose, but they didn't build it.

You know, I really don't think that the smaller towns in this area could afford to participate in that, because if they paid for the lake on a percentage, you know, 35 percent of the water, they pay 5 percent of the cost, I don't know of any of them's budget that could stand that.

Also, I might add that Mr. Peck told us the other night over there, I asked in Piedmont, you know, Deer Creek, I asked how much water they would have to sell out of this thing to pay for it, and I believe he told me they'd have to sell all of it for 50 years.

So I hope if they pass it Edmond will continue to grow, because they'll have to take every gallon to pay for it, I believe I heard him right, he said all of it for 50 years. As far as recreation and fishing,

well for $270 million you can run a lot of shuttle buses back to Eufaula.

Of course, there is people that would come out ahead in this, you know, developers and stuff like that, or somebody with a beer and bait stand; but as far as the cost go, besides the direct cost, you have the indirect cost of the crop and livestock production off that, and your oil and gas production off of 14,000 or 15,000 acres would make this a very expensive project, and in fact, I feel like it's too expensive.

Also, I might add that I was glad to hear that those two projects Mr. Peck mentioned, I believe it was him, one of them mentioned, that came in under budget, because that's the first Government project I've ever heard about that came in under budget.

I think there's a canal down in the Eastern part of the United States, or waterway that they were building through Mississippi and stuff there, that run about $1 billion or something.

Senator NICKLES. The Tennessee-Tombigbee, it was a little over budget.

Mr. TERRELL. And it's not completed yet. You know, I have no faith that this project would be any different, and as Jack brought up, you know, ACOG and some of them, I think some of these outfits come up with some cheaper plans for water.

It's not that Oklahoma doesn't need water projects, but I just don't think that we can afford this one at this time, and I'll say again, I don't think the State of Oklahoma, in spite of what these people in the water down at the city there said, I don't think the State of Oklahoma could afford it.

I don't think the legislature would vote the funds for it, and I really don't think these small towns could afford to pay for it; and really, I just think this looks like one of those projects that could be awarded the Golden Fleece Award. That's about all I have.

[The prepared statement of Mr. Terrell follows:]

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With the construction of the Seward Project, I will lose my home and 20 acres of grassland to lake right-of-way and recreation. Therefore, I oppose the project for this and a number of other reasons.

I. This will increase the federal deficit by 270 million dollars.

II. This project will not stop flooding in Guthrie.

A. The property taken for the lake exceeds the value of the property in the flood plain at Guthrie.

III. Displacement of more than 150 families.

A. With more than 150 families looking for homes, property prices would increase.
B. The government pays fair market value, not replacement cost of land.
C. It would be especially hard on elderly people to give up their homes.

IV. The lake will remove 14 to 15 thousand acres of land from tax rolls.

A. Taxes on land left in the area would have to be raised to offset loss, or raised to pay for increased law enforcement and road maintence. County government is strapped now.
B. A number of oil wells and pipelines are in the proposed lake area.
1. Current production as well as any new development and/or drilling would be halted.
2. Gross production taxes from these oil and gas wells would be lost. Also, the federal government would lose its Windfall Profit tax.

V. PROBLEMS for the community.

A. Due to locaton from Oklahoma City, we will have increased problem with:

1. Drinking and/or drunk drivers.
2. Litter and/or trash dumping.
3. Transients, people living in tents, and cars in area for weeks. Lake Thunderbird is an example.
4. Dealing with undesirables would markedly increase. This has been a problem in Oklahoma City, especially in the Stars and Stripes park on Lake Hefner. The rest stops on I-35 in the area are closed at dark because of this problem.
5. Logan county does not have the money to handle the increased law enforcement, nor the money to upgrade the roads in the area to carry increased traffic.

VI. Impact on farmers.

A. Farmers would not be able to buy farms to replace those taken for the lake. They would have to:

1. Accept the cash, go out of busness, and pay capital gain tax. They could leave their heirs the cash instead of the land, but the tax rate is higher for cash than land.
2. Farmers renting land taken for the lake would be out of luck with nothing but a note on their tractor, and less land to farm.

VII. Water for cities.

A. Oklahoma City has a number of lakes now. Their problem is distribution -- not supply.
B. Edmond will have the new Arcadia Lake.
C. Guthrie could build Bear Creek where they have already acquired some land and voted a sales tax several years ago for this purpose. I don't think the smaller towns in the area would be able to afford the cost for them to participate in this project.

VIII. Fishing.

A. For 270 million dollars the government could run busses to other lakes in Oklahoma for a long time.

IX. Cost.

A. Besides the direct cost, the indirect cost of the loss in crop and livestock production, and in oil and gas production from 14 to 15 thousand acres of land would make this project to expensive.

THIS PROJECT SHOULD BE GIVEN THE GOLDEN FLEECE AWARD.

Richard Terrell

Senator NICKLES. Mr. Terrell, I appreciate your comments. Lou and Linda Rainey.

STATEMENT OF LOU RAINEY

Mr. RAINEY. My name is Lou Rainey. We live right north of the juncture of Deer Creek and Cottonwood, and we've been out there about 12 years, now. The land has been in my wife's family's name since the land run.

One of the things I'd like to allude to here is that the fact that, for some reason right now, they've going to start working with people to buy land, inundate less land. If your land's not inundated they'll work with you on recreation facilities, try to keep you out of it, to let you have it.

There's talk about, well, we'd like to get you to pass this tax incentive that we won't have to pay capital gains on this. Where in any project that they've ever done, have they ever done this for in the past? All of a sudden, miraculously, they're going to do it for us now.

I'm an optimist, eternal optimist, but I guess I'm a pessimist in this instance, we're on an eternal roller coaster out there where we live, and this land has been in my family's name since the land run. It means the world to me for my wife and my daughters, and there's many, many other things that we have questions to.

Who is going to drink this water? Oklahoma City's not going to participate in this thing, they're going back to stage two level on the expulsion of this. What are they going to do with the sewer runoff, the storm sewer runoff, that's going to be polluted down there, too?

Are the effluents going to be pumped over there, are they going to have to start pumping effluents? Chisholm Creek backs up, there's many people live over on Chisholm Creek that their ponds are going to be flooded, Bill's stock won't go down there and drink out of that thing, what's going to happen to these people?

The reason Seward didn't pass, mainly because—this is my estimation, because of the number of people that lived on Chisholm Creek. Well, there's more people that live on Cottonwood right now, more people live on Deer Creek right now than lived on this when they turned that down, plus the fact of the water treatement fact.

Now Oklahoma City wants to go back to stage two. Who is going to break that water on down below Guthrie then? I don't know why, but for some reason when we talk about this miraculous recovery, and they're going to work it on these people, many of these people over on the hill feel that they're going to get to retain what they've got, I don't see it ever happening. Many people that feel placated in this instance, I don't think there's justification to their backoff saying, we're going to get to keep ours, or we're going to to get to do that.

Where has it ever happened before? All these people talk about wanting to do these things for many people, but it won't spoken.

So, therefore, those are the selfish reasons why I'm against it, plus innumerable other points have been brought up by many of our other guests that have spoken.

Senator NICKLES. Linda, did you have any additional comments? Anybody that has any written comments, if you wish, make sure that you give those to the reporter before you leave and we'll have those added on the record.

STATEMENT OF LINDA CORNFORTH RAINEY

Mrs. RAINEY. My name is Linda Cornforth Rainey. I have a prepared statement, but there have been some things that have been brought up that seem to bother me and I want to relate to those first. The first thing, the main thing is the flood control, what I would call propaganda, that I feel like we saw here today.

I do know—I've lived in the area long enough, I know that Guthrie does have a flood control problem and they've had it for many years, and I think it's about time that they start solving that problem, and I think they need to start solving that problem right here, right in the town of Guthrie.

It would take a drop in the bucket, as far as money, to solve some of the problems right here, compared to the cost of this reservoir, which has been pointed out that it will not even still solve the flood problems.

It also disturbs me in the reports, and these were reporters, and whether they were quotes from anyone living in Guthrie or city officials, but they quoted that the water came out of nowhere, or no one thought it would be that bad. I can sit in my own home, I've lived there long enough I can realize when you hear the weather reports and there's an 8-plus inch rain in the area where we had it, it was going to go into the Cottonwood, it was going to go into the Deer Creek, they were going to meet right south of our house and they were going to start rolling into Guthrie.

I happened to know when I left for school that morning that when I got home there would be no way I could get in my driveway, and we could park in the neighbor's, and we could plow through the mud and the pasture and get home, and our house is up on a hill, and our house is in no danger of flooding.

As far as I know, I don't know of any individual in this whole area, or resident who lives in an area where they're going to be flooded, and yet there are numerous people who live in the flood plains in Guthrie, and I feel like that ought to be solved.

The third thing is that the study does show that the cost for providing flood control, for even these 5- to 10-year annual floods, is not cost effective. Therefore, I think it shouldn't have been kind of played up as maybe a, you know, that it was going to be solved; but I think it has been pointed out that that is not going to be totally provided for.

Another comment that I thought was interesting is the man that suggested the Cimarron River project. I feel for these people that live along the flood banks of the Cottonwood here and Deer Creek, or anyone who would own land, farms, and homes just along the Cimarron, just as much as I would if we lost our home; but he stated as to how much water supply would be provided by the Cimarron River, and even though the process of taking the chlorine out of the water might take 30 years, the idea that I kind of get here is that these cities may not need water for the next 15 to 20 years.

OK. We're going to come close there in comparison to meeting that, if his numbers were right as far as years, and the amount of water that would come out of Seward is just here again, a drop in the bucket compared to what could be brought in from there.

If Seward is built Edmond stated they'd take all the water. The water resources board has named numerous towns who are interested, they haven't put their name on the line to pay for the water, but they say they're interested. If we have a tremendous amount of need for water in the State of Oklahoma in the central area, Seward cannot provide it.

Maybe the Cimarron River needs to be looked into, maybe other areas further away and piping it in. I feel like that this is not really—I feel like they're saying that this is the solution for the water supply for central Oklahoma and I personally do not feel like it is.

On to what I have prepared to say. As my husband stated a few things, we live on 160 that we co-own with my brother. This land has been—this land that we live on would be totally wiped out by this project. I am a fourth generation, living on land that has been in our family since the run in 1889.

We have two daughters, ages 8 and 6, and they are already talking about where they want to build their house on our land. This land was soonered and my great-great-grandfather protested and got it. It cost him $3,000, and he spent many years borrowing and farming, but he was able to keep the land.

My parents brought it from the family 38 years ago, my father farmed it and my mother taught school to augment a small farmer's income but they were able to keep the land. Now that my father is retired, this land is rented out and we still make enough money to keep it, have a little income, and be able to pay the taxes.

The people that farm this land do make money, it's some of their best crop and pastureland. The Deer Creek enters into the Cottonwood a half a mile south of our home, and bottom land does sometimes flood. With whatever we lose in the flood we gain another year in subsoil moisture.

People are continuing to farm the bottom lands, as soon as someone gives it up there are others who are willing to farm it. We have been reassured at more than one meeting that this reservoir is not for flood control, and there are mainly two reasons, because of the speed with which the water flows, and because of the expense of adding flood control measures to the project.

To me, adding flood measures to this project, which you have requested them to do, seems to me like it would only take out more land. The amount of money that it's proposed to take to solve Guthrie's flood problem would not come close to buying out just one good farm and a sprawling home.

The concluding study on this project states the three needs of a reservoir as additional water supplies, recreational opportunities, and flood protection in the central Oklahoma area. In regard to the first area, I'd like to quote from that concluding study of December 1981.

Nevertheless, as the scheduled completion of the feasibility investigation drew near, only two communities had expressed a definite interest in participating in the

proposed project. Their combined near-term water supply needs were considered insufficient to justify recommendation for project authorization in the immediate future.

It was therefore determined that the investigation should be discontinued, and that a concluding report should be prepared to preserve the substantial work already completed for future use, whenever changed conditions warrant further action.

The two communities involved were Edmond and Guthrie. Now Edmond will be buying water from the Arcadia Reservoir, which will take care of them for a certain length of time, and I understand that Guthrie, because of the pollution from the Deer Creek plant into the Cottonwood, will be receiving water from Oklahoma City through the Atoka pipeline.

This should take care of these two cities for years to come. This study was to be continued when additional communities with sufficient water needs had expressed a definite interest in participating in the project, since the No. 1 reason for the reservoir is water needs for these cities that are definitely interested in putting the name on the line that they will pay for the water.

We understand that there are numerous cities who have signed resolutions that they're in favor of the reservoir, but that doesn't say that they're willing to pay for the water, or have a present need for the water. Now, how in the world can an agency of the State of Oklahoma afford such an undertaking when the State is crying for a tax increase?

I have already spoken to the flood control situation which has been declared cost prohibitive, that only leaves recreation, which seems to be receiving a big push from someone because of the supposed benefits. We feel we have plenty of recreation in the area now, with people hunting for various wildlife, deer, raccoon, coyote, quail, dove, et cetera.

We have fishing and farm ponds, and we have various groups, like the Boy Scouts or church groups, who come out and use our land. Then, of course, there are those who party in the area, this is not the kind of recreation that you're speaking to in the project, but the undesirables in the lake area would be multiplied by the thousands and would present quite a problem because of our close proximity to Oklahoma City and other surrounding cities.

It was pointed out at one of our previous public meetings how the recreational area and wildlife area were being abused in Lake Thunderbird, and it is also in close proximity to Oklahoma City. As you can tell, my first reason for not being in favor of this project is a selfish one, we don not wish to lose our home and the land that means so much to us.

Second, I feel that the money that would have to be expended is outlandish in a time when we have a large State and national deficit. I feel that the water supply and flood problems could be solved in a much less expensive way without using up so much land for a shallow lake that would not really provide a great deal of water for the needs 30 years from now.

In closing, we hope that you will pay considerable attention to the lives and the livelihoods of those that are here now, and those of the future. We respectfully ask that you will reconsider this project and discontinue funding. If you feel that it needs to be reevaluated, we respectfully ask that the bill be rewritten only allow-

ing for the funding of the study and not the whole project. Thank you.

[The prepared statement of Mrs. Rainey follows:]

January 10, 1984 Congressional Hearing Guthrie, OK.

I am Linda Cornforth Rainey. My husband and I live on 160 acres that is co-owned by myself and my brother. This land would be totally wiped out by the Seward project. I am a 4th generation living on land that has been in our family since the run of 1889. We have 2 daughters, ages 8 and 6, who are already talking about where they want to build their house on this 160 acres.

This land was "soonered" and my great-great grandfather protested and got it. It cost him $3,000 and he spent many years borrowing and farming and he was able to keep the land. My parents bought it from the family 38 years ago. My father farmed it and my mother taught school to augment a small farmer's income, but they were able to keep the land. Now that my father is retired, this land is rented out and we still make enough money to keep it and pay the taxes.

The people who farm this land do make money. It is some of their best crop and pasture land.

Deer Creek empties into the Cottonwood ½ miles south of our house and the bottom land does sometimes flood. With whatever we loose in a flood, we gain another year in sub-soil moisture.

People are continuing to farm the bottom lands. As soon as someone gives it up, there are others who are willing to farm it.

We have been reassured at more than one meeting that this reservoir is not for flood control:

#1 -- because of the speed with which the water flows, and

2 -- because of the expense of putting flood control measures into the project.

The amount of money, that it is proposed to take, to solve Guthrie's flood problem would not come close to buying out just one good farm and a sprawling home.

The concluding study on this project states the three recognized needs of a reservoir as: additional water supplies, recreational opportunities and flood protection in the central Oklahoma area. In regard to the first area, I quote.

"Nevertheless, as the scheduled completion of the feasibility investigation drew near, only two communities had expressed a definite interest in participating in the proposed project. Their combined near-term water supply needs were considered insufficient to justify a recommendation for project authorization in the immediate future. It was, therefore,

determined that the investigation should be discontinued, and that a concluding report should be prepared to preserve the substantial work already completed for future use whenever changed conditions warrant further action." (end quote)

The two communities involved were Edmond and Guthrie. Now, Edmond will be buying additional water from Arcadia Reservoir and Guthrie will be getting water from Oklahoma City through the Atoka pipeline. This should take care of these two cities for years to come.

This study was to be continued when additional communities with sufficient water needs have expressed a definite interest in participating in the potential project. Since the # 1 reason for a reservoir is water needs, who are the cities that are definitely interested in paying for the water? We understand that there are numerous cities who have signed resolutions that they are in favor of the reservoir--that doesn't say they are willing to pay for water or have a present need for water. We also understand that the Oklahoma Water Resources Board is willing to pay for the water until such a time that these cities need water. Now, how in the world can an agency of the state of Oklahoma afford such an undertaking when the state is crying for a tax increase?!!!

I have already spoken to the flood control situation which has been declared cost prohibitive. That only leaves recreation which seems to be receiving a big push from someone because of the supposed benefits. We feel we have plenty of recreation in the area now with people hunting for various wildlife; deer, racoons, coyote, quail, dove, etc. There is also fishing in farm ponds. Various groups; example, Boy Scouts, Church groups, etc. who use the land. And then, of course, there are those who "party" in the area. This is not the kind of recreation you are speaking

about, but the undesirables in the lake area would be multiplied by the thousands and would present quite a problem because of our close proximity to Oklahoma City and other surrounding cities. It was pointed out at one meeting how the recreational area and wildlife area were being abused at Lake Thunderbird which is also in close proximity to Oklahoma City. Therefore, I believe that the recreational opportunities will not be as wonderful as they are written up to be.

As you can tell, my first reason for not being in favor of this project is a selfish one. We do not wish to loose our home and the land that means so much to us. Secondly, I feel that the money that would have to be ex[illegible]ded is outlandish in a time when we have a large state and national deficit. I feel that the water supply and flood problems could be solved in a much less expensive way without using up so much land for a shallow lake that would not really provide a great deal of water for needs 30 years from now.

In closing, we hope that you will pay considerable attention to the lives and livlihoods of those here now and those of the future. We respectfully ask that you will reconsider this project and discontinue funding. If you feel it needs to be re-evaluated, we respectfully ask that the bill be re-written, only allowing for the funding of the study and <u>not</u> the whole project.

Thank you.

Senator NICKLES. Thank you very much, Mr. and Mrs. Rainey. A couple of questions to the panelists, I'm going to have to keep my comments very short if I'm going to be able to get through, but just real briefly, Mr. Paddleford, you mentioned another reservoir that has water that it couldn't sell.

Mr. PADDLEFORD. Yes, sir. I was informed yesterday, through a telephone call to the Oklahoma Bureau of Water Resources, that the Sardis Reservoir, formerly called the Clayton Reservoir, has insufficient number of users, thereby causing the State to have to exercise and to fund this portion, or guarantee on the project, paid out in excess of $415,000.

They also advised me that they are looking for either water users, or as an alternative some industrial use, whereby water could be left from that area to turbines to generate electricity.

Senator NICKLES. I hadn't heard that before and I'll find out, that shouldn't be very hard to find out whether or not they had that project. Mr. Sullivan.

Mr. SULLIVAN. Yes, that's in southeastern Oklahoma, above Hugo Reservoir.

Senator NICKLES. I know where it is, do you have that answer?

Mr. SULLIVAN. The Red River comprehensive, it was done several years ago and it's part of the flood control on the Red River, Clayton, Tuskahoma as well as Hugo Reservoir. The primary purposes for those reservoirs was, in fact, flooding.

Senator NICKLES. Now that is corps project, whereas Bureau projects are primarily for water storage and distribution. Two different types of projects, but you mentioned it and I wanted to make sure that I had that clarified.

Mr. PADDLEFORD. Senator, if I may, just one additional comment. The purpose for bringing that before the committee was to indicate that perhaps some of us have some concern about the Oklahoma Water Resources Board's candidness in presenting the facts concerning this reservoir.

It's obvious that the board has promoted this project, as early as in January 1978 a letter from the board to the Bureau of Reclamation had set this as a No. 1 priority, and the letter also indicates they were going to get out and to generate interest in this project.

I doubt—I have serious doubt about the credibility and the candor of the presentations made by the Oklahoma Water Resources Board, it is not objective, it is very subjective, that causes me to doubt the credibility of the information and conclusions used then to support this project, and I merely point that out to you for your interest, so that perhaps if there is anything to this our congressional delegation can check it out.

Senator NICKLES. One of the purposes of the hearing is to try and get various views and viewpoints of the issue. Also, I'm aware, and every person in this room is probably aware, you hear a lot of different things, a lot of which are not factual, and we're trying to get the facts out, and I think that's to everyone's advantage.

The statements that we have, that everyone's made, are part of the record. We'll also give people a chance to offer some imput, or possibly from the Bureau of from the corps in this case, to be able to state exactly what the facts are.

The panel as a whole, this entire panel was generally, with the possible exception of Mr. Kinney who mentioned some reservations, basically was opposed. Do any of you feel like there is just no water problem, potential problem, in the coming years as far as central Oklahoma is concerned?

Mr. DAVIS. I started attending meetings, I live in Oklahoma City and I have some——

Senator NICKLES. Do you have some property in the area?

Mr. DAVIS. I have a little bit of property, it's incidental because it's up in grass land, it's really incidental. I started from a neutral position and oppose it now, because of the facts that have surfaced during the last 10 years.

I don't feel like there's problems now for the short term or mid-term, or whatever you want to call it. The long-term solution is to import water from southeastern Oklahoma, you can find that in the water resources planning itself. Now, I think that's the answer.

I don't see a shortage now with Arcadia coming on, and with the Garber-Wellington Aquifer, which really hadn't been touched. The board's own—sorry, the Bureau had a geological survey make a preliminary analysis in 1977 and it said that there was very little being used out of that aquifer. I know it's increased, but if you look at that ACOG plan there's worlds of water there, worlds of water.

Senator NICKLES. Any body else want to comment on the question? I saw some other hands that were raised on the question of, do we need to find additional water supplies sometime, not necessarily within the next 5 years, but possibly looking 20 years down the road. Do you agree? We had a lot of other experts that came up and said, yes, we're going to have a water problem in 15 years, or 1990, or the year 2000, or 2010. Do you agree with that assessment, Mr. Kinney?

Mr. KINNEY. No, sir, I don't see that need in the area that we're talking about out there. The industry is coming in—not industry, the inhabitants are coming in with new homes and, et cetera, they are drilling wells, they have plenty of water.

As far as I can tell the water table is not affected that much by homes going in, nothing like your irrigation, et cetera, such as that. I see no need of excessive usage of water down the line. If I may, I would like to add one thing for your thought. They're talking about this reservoir, about putting the water over the hill from Deer Creek into Cimarron.

Senator, I have seen trees going down the Cimarron end over end when it's flooding. What is this going to benefit Guthrie if they take the water and put into the Cimarron and come back, and come back up the backside of Guthrie, which it does every time Cimarron floods?

Mr. TERRELL. I agree with them as far as the water needs of Oklahoma City.

Senator NICKLES. You don't think we'll have any water needs?

Mr. TERRELL. No. I think that the ACOG planning and what have you will take care of this. As far as industry in this area, industry normally does not locate in a residential type area. As far as—while we're on this subject, Edmond is in hock $50 million right now for Arcadia Lake.

If, as you say, they'd like to have it all but they'd settle for half, if they take half you're talking about, you know, they're going to be in hock $200 million for water, and I believe if you'll look down there in the records he said the population of Edmond—well, they're going to have to grow a bunch, $200 million is a lot of money for a town the size of Edmond.

Senator NICKLES. Let me just make one comment. The way these projects are financed, at least projects like this would be financed, would be that you would allocate the money that's used to provide for water for sale, M&I water, municipal and industrial water, that water, that percentage of the project costs for repayment.

I would hope—again, as I have stated before, I think the 270 seems enormous cost to me, and you mention another problem, the deficit problem and so on, which is a very significant problem and one that we need to keep in mind on all projects. You'll find that I'm not one for boondoggling projects, or spending for the sake of spending money.

The way these projects are financed is, as it's built, or as a matter of fact, even the costs of continuing studies from the authorization on, all costs that are allocated to water storage for water sales, would be charged back to who was using water. The project wouldn't be built unless there was a pretty concrete determination that there would be buyers for that water.

Mr. RAINEY. Not pretty concrete, they have to sign the line, don't they?

Senator NICKLES. I'm not exactly sure how technical, Lou, they would actually get. I would concur with some of the statements two or three people in this panel have made that, yes, there is a difference between these communities that pass resolutions that say, yes, they'd like to see the thing built, but don't ask us for a firm commitment.

If we went to the next stage, when they get into the detailed feasibility stage they want to find out—and I don't know exactly how concrete the commitments have to be, but I would concur that, yes, when you're talking aobut this kind of money you want to make sure they can repay costs, basically over 40 years instead of 50 years, I think maybe some of them used to be 50.

You're talking about amortizing all that cost plus interest, and that will be paid for not "just by the city of Edmond or the city of such and such," it would be paid for by the water users, whoever is using that water, whether it would be new industry or new residential. You wanted to make a statement?

Mr. RAINEY. Well, you talk about industry and industry moving in, I always thought farming was an industry; and you're not going to be able to irrigate water out of that and augment Edmond or whoever else is going to buy it at the same time.

So the farmers, the industry that's in the area right now, will not be able to take any water out of that thing. Mr. Peck told us that farmers will not be able to get irrigating out of that. Isn't farming an industry?

Senator NICKLES. Are there very many farmers in this neighborhood that use irrigation?

Mr. KINNEY. We've tried but it's got too much pollution.

Mr. RAINEY. Deer Creek farms used to years ago, right there through the bottom lands on 74, used to irrigate.

Senator NICKLES. Now, we have a lot more irrigation. If you go northwest and even southwest, we've got some irrigation. Again, this is one of the reasons why I'm trying to have the hearing. I wasn't familiar with people using that much irrigation on the farming side, but I would certainly concur that farming is an industry that's already there.

A couple of questions and just to mention some of the changes that are proposed. One, tax changes, some have pointed out that there is a lot of difference between advocating something here and having it passed into law, what I would want and what you would want.

We may reach a consensus that we should support this. It's easier said than done, to make those changes, and I think some of those changes would and could and should be made, but it's still a lot easier said in Guthrie, OK, than it is done and getting it passed in Washington, DC. That should be recognized.

Mr. RAINEY. I've got a selling price. The selling price, from a selfish standpint of view, would be so prohibitive, do you understand what I'm saying? If they would ever pay me what I thought the value that I hold on that, it would be so prohibitive. I guess I would eventually sell out on down the line.

Senator NICKLES. I understand, because again, I will say farming is a business. I have a business, and what I would be willing to sell that business for may not really have a lot of relationship to what it's really even worth economically, or what its income producing potential is, there's a lot of things.

Two other comments, two or three people mentioned on this panel that if the dam was being built that we should minimize the amount of land that would have to be condemned or removed, or whatever. And I would certainly concur with that.

I would also note there were several comments that this is primarily a recreation project. It won't be built primarily as a recreation project, it would be built as a reclamation project. Flood control would be some benefit but not the primary benefit.

I think if you heard my earlier questions, and I think most of you were here, I asked the question, "Would this solve the flooding problems?" and the answer was it wouldn't solve it, but it would help. It depends on what the level and capacity of the lake was at the time of the rains, but it would help.

I think that it should be admitted, that no, it's not economical to do this project solely as a flood control project. I think that is primarily the corps' purpose, because the corps does most of their work on flood control." It wouldn't pay strictly as a flood control project.

Quite frankly, some of you mentioned it would be a lot cheaper to remove those persons who have their homes directly in the flood plain in the city of Guthrie, and no doubt it would. But there would be some flood control benefit from the project. There might be other measures that might be taken if the project was built and the lake was put in. There could possibly be some additional steps to be taken in the effort for flood control that could help agriculture, and help the city of Guthrie as well.

One comment I wanted to make on the recreational use. Recreation, is a benefit of lakes, and several of you mentioned there are positive aspects concerning recreation, and also there are some negative aspects of recreation. You can look at any lake in the State of Oklahoma and you can find both.

In many cases the recreation that has been an industry in itself has been very positive in many respects. You can look at some of the lakes and you've seen vandalism and some characters that you probably wouldn't want to have in your own backyard, and that's unfortuante, too. So there are pluses and minuses probably to every aspect of a project of this magnitude, but as long as I'm chairman of the committee that I am, the Water and Power Subcommittee, we have jurisdiction and oversight over the Bureau of Reclamation, not the Bureau of Recreation and we're going to make sure that we keep it that way.

I've heard people say some of the rumors out are that this is an effort to appease Oklahoma City people so they can have a place to go skiing and fishing. That's not the momentum behind this project. It won't be built for that reason.

The support by the earlier panelists who testified in favor of the project was the fact that they've computed—most people in this panel disagreed with it, but the earlier panel had done some homework and came to the conclusion that we're going to have some significant water problems in the 15- to 20-year range. They see the project as, I think, a step, but not necessarily a panacea towards solving the problem.

This is a lake that will have water capacity of about twice the size of Arcadia, so you're looking at 21 million gallons per day here, as compared to about 11 million gallons per day from Arcadia. A difference in size, about double plus it is, as you mentioned, a shallow lake.

So you're talking about more land. If you look at the McGee Creek Reservoir, you're talking about a deeper reservoir so you're not talking about quite as much land. Here we also have the proximity of the land to Edmond and Guthrie and Oklahoma City, which makes it expensive as well as the agricultural uses. So you start adding all these figures together and it's expensive.

I appreciate the input that you all have made. We have some other panelists, too, that may have similar views, and I better start letting them get up here or we're not going to be able to finish our panelists. Again, I want to thank you for your input, thank you very much.

Our next panel we have Beula Cornforth, landowner from Guthrie; Rick Jameson, Oklahoma Wildlife Federation; L.C. Cronkite, landowner from Cashion; Mark Thomas, manager of Deer Creek Farms; and Joe Roy Nakvinda is also a landowner from Cashion.

Did we lose some of our people? We may have to sit here a long time but I want our panelists to be heard, and we might as well start down at this end. Whoever wants to start, please identify yourself.

STATEMENT OF BEULA CORNFORTH

Mrs. CORNFORTH. I hope not to be too long, but I've spent lots of hours on this and I don't intend to leave any of it out. My name is Beula Cornforth, and I wish to speak in opposition of the proposed Seward Navina Reservoir project. My husband, Richard Cornforth, and I, have two farms in this township of Logan County.

Our children have an adjoining farm in the same project. All of our property is included in the proposed project for the lake right-of-way, lake, and recreation, our homes are also included in the project. As much as I oppose this project, if I felt that this were the only solution for a water supply for central Oklahoma, I would be willing to accept my unfortunate circumstances for the good of the many; but since this has not been shown to be true, I opposed the project.

First, I'm opposed to the project as a flood control measure. Studies have been done by the Corps of Engineers since the 1930's, and the Bureau of Reclamation in the early 1970's, and again by the Bureau through 1970 and 1980, and they all came to the conclusion that the project would not be feasible as a flood control project.

I quote from the preliminary concluding report, dated 1981, page G:

> Reservoir flood control facilities are not economically justified, the dollar value of the flood damages that would be prevented are less than the cost of providing the flood protection.

Second, I oppose this project as a source of municipal and industrial water supply. Since others have testified to great lengths to that, I will not dwell on that point. However, I do want to quote once more from the aforementioned study:

> Although the City of Guthrie's need for a new source of water supply is already urgent, the total quantity required for replacement and growth for the year 2000 is relatively small, in relation to the potential yield.

And then it goes on ending, saying, it ends with a statement saying that:

> The Seward project would not provide a justifiable or cost effective solution to Guthrie's water problems.

On the same page, in another paragraph, we find the following statement, "City voters have three times rejected a bond issue to finance construction of a new reservoir proposed by the city council in 1978." Of course, all this information became obsolete and moot when Guthrie and Oklahoma City came to an agreement, with concessions by both parties, for an ample water supply for Guthrie far into the future.

It is unreasonable to believe that Guthrie would vote to help pay for the Seward project when they do not need the water, and flood control would be extremely inadequate at best. Third, I wish to oppose the Seward project for recreation, which is discussed at length in the latest study dated December 1981.

The problems that have been documented on many of the existing State reservoirs point out plainly that we already have more policing and cleanup problems than our State can furnish personnel to handle, even before our State fell upon such hard times.

The size of the recreation area is not completely clear to me; on page D of this study, this study states recreation, 1,290 acres.

On page C, the same study says, 2,490 acres surrounding the reservoir that could be utilized to provide 335 campsites, 711 picnic areas, 2 swimming areas with facilities, 25 boat launching sites, 8 miles of hiking trails, 166 acres for group play, 20 miles of sightseeing, and also hunting areas may be established.

The proposed project, as shown on the most recent map, covers 15,590 acres. Since the maximum water surface covers 8,586 acres, there will be an additional 7,004 acres taken around the lake. This much extra land is hard to justify as being all that necessary.

So I oppose the lake as a flood control project, because it cannot actually control flooding. I oppose the project for water, because I feel that it has shown that the water supply available now is adequate for the short- and long-term needs. Also, I feel that it should be noted that when the location of the dam was moved from the Seward site—and that's very plain on this map back here—to the Navina site, keeping the same elevation, a great deal of the deep-water storage of the lake was lost.

Though the reasons given for relocating this damsite from the Seward to Navina were, first, housing on Chisholm Creek, and second, the sewer problem, those two problems are now pertinent to the Navina site. I feel that the same two reasons could now be rationally used to discontinuing the study of the Navina site.

I oppose the project for recreation, because I think neither our States nor our Federal Government have the funds for more recreational facilities. There is a fourth reason that I strongly and actively oppose this project, namely, the impact on the people to be dislocated and farming businesses to be liquidated.

The proposed project involves 15,590 acres of land, in five townships in Logan, Kingfisher, and Oklahoma Counties. There are 50 sections of land that would be involved, from the whole quarter to a small portion of these farms. Sixty four whole quarters will be taken; seven quarters lose from ⅝ to 15/16; 17 quarters lose from ⅔ to ¾; 15 quarters lose from ⅓ to ½; 14 quarters lose less than ¼ to a small portion.

Now, when a large part of a quarter is taken, the remaining acres, in many instances, are not practical to continue farming. My calculations show that these numbers represent 37 farming operations; that's businesses, if you please, that would be taken, be completely liquidated.

If we were to liquidate, say, 37 businesses from this town of Guthrie, Main Street could be a bit bare; 20 other farming operations would lose from a parcel of that to nearly all their land. So you might consider that with the proposal, that these with a counterproposal say, well, these lands would be attractive lakefront sites, but the map that I have been working on does not support this theory.

Using a U.S. Department of Interior geological survey topographical map showing the elevation at 10-foot intervals, to superimpose the project on the main body of water appears relatively small, noting that the elevation of the spillway is 1,018.

I have outlined that 1,020 elevation line around the lake, the blue area could be considered the flood plain area, the green shade

areas represent the trees to be removed from the area. Our home, exactly 2 miles due west of the spillway, shows an elevation of 1,056 on the topographical map and on a permanent marker at our corner, 38 feet higher than the spillway.

Check the elevations down the two creeks and to their many tributaries; you can see that the water at any depth drops off quickly. Comparing the elevation to that of the spillway, one must come to the conclusion that much of the lake would probably be marshy areas, at best.

Also, people were informed by Mr. Peck at a meeting with the Bureau, that the lake would be fenced with limited access—the only areas marked as recreation lie east of Highway 74. All the available studies that I have seen state that only 47 families would have to be relocated. We have done considerable checking, and by our count, we show that there are from 150 to 165 homes found in the area, and I have indicated them with black dots on the map.

There are homes under construction or scheduled to be built that I have indicated with an "X." Some homes not counted are located just outside of the area, but some of these people indicated that they object to having a public lake next to their home; a few others say they could not support a lake that would take the homes of their neighbors.

There are a number of individual acreages scattered about the proposed area, and there are also housing developments on five quarter sections in the proposed area, two quarter sections that are partially in the area, and another that borders the area.

In addition to farms, acreages, and housing developments, there are two horse farms—Mathis Farm, 560 acres, and Windy Meadow Farm, 700 acres. There are at present 15 housing units on these farms with others under construction, in addition to show barns, offices, and so forth. One farm has a racetrack under construction.

Last, but certainly not least, there are a number of area farmers who rent or lease land in this proposed project area who would not be able to relocate rent lands outside the area, if indeed, they could find land at all. This project could become a real hardship in this respect.

In conclusion, I repeat, I am opposed to a proposed Seward Reservoir project because, first, the project is too costly for the dubious benefits; second, the list of water needs have not been validated, and third, the project will not solve water flooding problems.

Fourth, the project would create policing problems. Fifth, the project would be most detrimental to the farmers, renters, and custom laborers of the area, and most importantly, the project would be most devasting to a large number of families that would be forced to give up their homes and liquidate their businesses.

Someone at the Deer Creek community meeting last week assured me, oh, you will be paid for your holdings, but I want to assure you that there is no amount of money that can pay for a way of life, and that's exactly what our home is to us.

Senator NICKLES. Thank you very much for your comments; I appreciate them. How long have you and your family been on that land?

Mrs. CORNFORTH. Well, my husband's grandfather homesteaded it.

Senator NICKLES. Going back to when?

Mrs. CORNFORTH. Back to 1889.

Senator NICKLES. Thank you very much. We have—I'm starting to count, about another 12 or 15 people that want to speak. I apologize, I think I've talked longer than I possibly should.

I appreciate also this map. You went to a lot of trouble and it illustrates where a lot of the homes and so on are. It is helpful. Anyway, I'll try to talk a lot less, and if you all would talk a little faster this would enable all of the people who have requested to testify to be able to testify.

STATEMENT OF RICK JAMESON, EXECUTIVE DIRECTOR, OKLAHOMA WILDLIFE FEDERATION

Mr. JAMESON. Thank you, Senator, my name is Rick Jameson, I'm executive director of the Oklahoma Wildlife Federation. The Wildlife Federation is a non-governmental citizens group located on Lincoln Boulevard in Oklahoma City. We are here because projects of this nature can have a detrimental and/or beneficial impact on the area's land, water and wildlife resources.

We are not here to testify for or against a new water project, Congress can decide if the need and money exists to justify this project. I would say to your benefit that I believe you are one that would not vote for a boondoggling project, I think your record bears that out.

Our concern, though, is if the project is going to be built, we would like to see the projects water quality, wildlife and outdoor recreation potential enhanced as much as possible. The people of central Oklahoma deserve more than just an impoundment, certainly more than an impoundment of polluted water.

We would like to see the Federal, State and local governments insure that the water going into this project is suitable for swimming, fishing and drinking. The pollution problem cited in the Bureau's December 1981 report need to be resolved before any reservoir is constructed.

Special effort should also be made to control soil erosion in the watershed above the Navina Dam site if it is to be built. We are also concerned that the 28½ miles of stream bottom habitat and 6—well, I think, 7,000-plus acres of land which would be flooded, should be properly mitigated.

We believe that the 480 acres of mitigation land in the Bureau report is lacking both in quality and quantity. A tour of the project site revealed to me that the best bottomland timber on the project is scheduled to be cleared, that's just above the dam site, while the mitigation land offered by the Bureau of Reclamation is a very, very narrow strip of timber, just below the dam.

A somewhat larger, better area is recommended for mitigation. The Wildlife Federation also supports wildlife enhancement areas on the upper end of the development, and we're not asking for additional land, we're just asking that some of the project land that is going to be there, if you build it, be designated for some wildlife management, this would be in the flood pool and up to the project boundaries.

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Such areas would replace the habitat being flooded and should be large enough to support some hunting of native game species, deer, quail, turkey, waterfowl, dove, squirrel that exist in the area, and some trapping of furbearers, which is occurring in the area.

We are disappointed in the Bureau's rather dim outlook on hunting opportunities reflected in their December 1981 report. The lack of hunting areas in central Oklahoma gives the Bureau and the Oklahoma Department of Wildlife Conservation a responsibility and an opportunity to provide some public hunting for the region's sportsmen.

I should say that there is hunting going on now and that would be lost if some type of hunting is not provided on the project. Creating a 2,100-plus-acre management area on the upper end of Cottonwood Creek as the Fish and Wildlife Service has recommended, could be a starting point toward this end.

We would support the development of the project's fishing potential, leaving some standing timber on the upper end of Deer Creek and Cottonwood Creek creating some brush piles and structures regulating downstream flows. Stocking fish and building boat ramps, as outlined by the Bureau, is a definite plus for the project.

I might add that most of those things are just design features, they're not necessarily costly features, it's just that we'd like to see it done properly if it's going to be done. We'd like the Bureau to give special emphasis to the streamside and lakeside fisherman, who is often neglected when reservoirs are built.

Too many of these lakes are built, it seems like, only with the guy that's got a $15,000 bass boat in mind. We would suggest at least two lighted fishing piers on the lake along with the parking areas. I think those could be paid for by reducing the number of boat ramps on the project, I don't see any need for 25 boat ramps, I would think that that's rather excessive on a lake of this size.

Fishing access should also be provided on the dam, if possible, and below the dam, and I think measures like that are justified since most fishermen do not have boats and would be better served by facilities that would encourage and permit bank fishing.

Within the framework of the Fish and Wildlife Service Report of March 1980, that was done in conjunction with the Bureau study, our preference would most closely follow a combination of plans "B" and "C", with perhaps a slightly greater emphasis on providing hunting and fishing opportunities on the project.

We would concur and support the Bureau's plan to include camping, picnicking and some day-use recreation in the project, and although, perhaps not as much land is needed on that lower end of the project, as is presently indicated in the Bureau's plan, to protect environmental quality and to reduce public/landowner conflicts, it is strongly recommended that the project boundaries be fenced and clearly marked before completion of the project, so that those types of conflict don't happen.

Thank you for the opportunity for input, and if this is to be pursued we would like an opportunity to work with the parties involved.

[The prepared statement of Mr. Jameson follows:]

COMMENTS OF THE
OKLAHOMA WILDLIFE FEDERATION
REGARDING THE PROPOSED
SEWARD LAKE PROJECT (S. 2098)
JANUARY 10, 1984
AMERICAN LEGION HALL, GUTHRIE, OKLAHOMA

On behalf of the officers, directors, and 9,500 members of the Oklahoma Wildlife Federation, I thank Senator Nickles for the opportunity to present our comments on the proposed Seward Lake Project. My name is Rick Jameson. I serve as Executive Director of the Oklahoma Wildlife Federation which has its office at 4545 Lincoln Boulevard in Oklahoma City.

We are here because projects of this nature can have detrimental and/or beneficial impacts on the area's land, water and wildlife resources. We are not here to testify for or against a new water project. Congress can decide if the need and the money exists to justify this project. Our concern is, if the project is going to be built, we would like to see the project's water quality, wildlife and outdoor recreation potential enhanced as much as possible. The people of Central Oklahoma deserve more than just an impoundment.

We would like to see the federal, state and local governments ensure that the water going into this project is suitable for swimming, fishing and drinking. The pollution problems cited in the Bureau of Reclamation's December 1981 Report need to be resolved before any reservoir is constructed. Special effort should also

be made to control soil erosion in the watershed above the Navina Dam site.

We are concerned that the 28½ miles of stream bottom habitat and 6,000 plus acres of land which would be flooded be mitigated. We believe that the 480 acres of mitigation land in the BOR Report is lacking in quality and quantity. A tour of the project site reveals that the best bottom land timber on the project is scheduled to be cleared bare, while the mitigation land offered by the BOR contains a large percentage of bermuda pasture and only a narrow band of timber. A significantly wider and longer area is recommended for mitigation.

The Wildlife Federation also supports wildlife enhancement areas on the upper end of the development. Such areas would replace habitat being flooded and should be large enough to support regulated hunting of native game species such as deer, quail, turkey, waterfowl and squirrel and trapping of furbearers.

We are disappointed in the Bureau's rather dim outlook on hunting opportunities reflected in their December 1981 report. The tremendous lack of hunting areas in Central Oklahoma gives the Bureau of Reclamation and the Oklahoma Department of Wildlife Conservation a responsibility to provide some public hunting for the region's sportsmen. Creating a 2100 plus acre management area on the upper end of Cottonwood Creek could be a minimum starting point toward this end.

We wholeheartedly support the development of the project's fishing potential. Leaving standing timber, creating brush piles

and structures, regulating downstream flows, stocking fish, and building boat ramps as outlined by the Bureau, is a definite plus for the project. We would like the Bureau to give special emphasis to the stream and lakeshore fisherman who is often neglected when reservoirs are built. Some fish structures should be near the shore and marked to assist bank fishermen. Construction below the dam should provide for safe access and fishing opportunities for the nonboating fishermen. We suggest at least two lighted fishing piers on the lake, along with parking areas. Fishing access should also be provided on the dam if possible. Such measures are amply justified since most fishermen simply do not have boats.

Within the framework of the Fish and Wildlife Service Report of March 1980, our preference would most closely follow a combination of Plans B and C with perhaps a slightly greater emphasis on providing more hunting and fishing opportunity.

We concur and support the Bureau's plan to include camping, picnicking and day-use recreation in the project.

To protect environmental quality and reduce public/landowner conflicts, it is strongly recommended that the project boundaries be fenced and clearly marked before completion of the project.

We thank you again for this opportunity for input. Should this project be funded, we offer to work closely with all parties involved.

Senator NICKLES. Thank you very much, Mr. Jameson.

STATEMENT OF JOE ROY NAKVINDA, AS PRESENTED BY JOE ROY NAKVINDA, JR.

Mr. NAKVINDA. Thank you. I'm Joe Roy Nakvinda, Jr., I'm here on behalf of my father Joe Roy Nakvinda. He was unable to attend today because of business, and I think you can tell by my dress that I really wasn't planning on appearing before you.

I do have a written letter by him that I'd like to read at this time. It's addressed to Senator Don Nickles. My name is Joe Roy Nakvinda, I live at Route 1, Box 525, Cashion, OK. We have a 160-acre family farm in the northwest quarter of sec. 20, 15 N. 4 W. of the Indian Meridian.

It is a fourth generation farming. I also have a feed and hardware store in Cashion, backhoe and trenching business, and I'm also a realtor. I might add to this letter that all of these businesses are based from the home. I am retired from the Federal Government with 29 years service.

I am against the lake for various reasons stated below. One, the lake will not be adequate for the purpose it is designed for, 80 percent of the land will have water on it 20 percent of the time, but it would be ruined for production because of 20 percent time back water.

Two, the State government is cutting expenditures severely at present, as is the Federal Government, why add at least, and I say at least, $240 million to our now many-troubled Government, that I feel and see will not serve the purpose it is solely designed for.

Three, this is the best production farming land in central Oklahoma, and it will be at the bottom of the lake with periodic back water ruining the other land. Farms are being covered fast enough by rural and suburban acreages, and consequently being taken out of production.

Someday soon we will see a severe shortage of farm products, as we have a severe shortage of water. Four, I surely think that a study should be made of a much bigger river, like the North or South Canadian, that would serve our water needs a lot better.

These rivers have less productive farmland that Cottonwood and Deer Creek properties; and it's signed Joe Roy Nakvinda. I would also like to address a few comments made earlier, one by Mrs. Rainey. She attested to the fact that water upland from Guthrie, OK, has never flooded.

I think I can attest to that better than anyone else because our home is not but 40 yards away from the banks of the Cottonwood. Also, the fact that people are going to be drinking this water. I know for a fact that the Deer Creek treatment plant isn't far at all from the Deer Creek, and I certainly don't want to drink that water.

It touches me in a big way that you're going to take our land that my great-grandfather homesteaded, and, you know, it really hurts because I was planning on farming. I have a farming background and it hurts me, as I see it hurts other farmers in this area.

I don't feel that you should do this, and I am strongly opposed to that, and I hope, you know, that you will take that into consideration. That is all I have to say for right now.

Senator NICKLES. Thank you very much.

STATEMENT OF MARK THOMAS, MANAGER, DEEP CREEK FARMS

Mr. THOMAS. My name is Mark Thomas, I'm the manager of Deer Creek Farms. I would like to say first of all, that what I say doesn't reflect necessarily the opinions of Deer Creek Farms, I'm a landowner within the lake area, also.

What I'd like to address most about would be the quality of the water. What I read so far from the Oklahoma Comprehensive Water Report says the quality for the Oklahoma streams of groundwater resources has emerged in recent years as a consideration of equal importance to that quality of water that would be provided by this lake, within the time that would be built.

That would be approximately 14,000 acre feet from Seward, with the actual need of somewhere near 436,000 acre feet, which is really a drop in the bucket. I wanted to also say that I haven't heard anything mentioned about Boswell, which I believe is in the area where the Atoka project is, where we already have waterlines that bring water up to the Oklahoma City area from Lake Draper, that there's a million acre feet of water in that, I believe, if I'm not wrong.

That is one source of water that we haven't discussed today, that could be used to help augment the water that's needed in the Oklahoma City area and Guthrie. First of all, as far as quality, in what I could get from literature that, you know, pertaining to it, the Association of Central Oklahoma Governments issued a report in 1972 concerning central Oklahoma land planning and useage.

I don't know how close this was used as a guideline to try to find out what the quality of water would be in the Deer Creek area, but it was really off the bat. We've had a lot more developments in that area than what they had initially, in 1972, thought that we would have in that area, and I think that has a great impact on what the quality of the water would be for the Deer Creek area, as far as what is called not-point source of pollution.

Part of that area, you know, the drainage area is in the Oklahoma City area, but larger portions of it are outside of this, they're in Oklahoma County, Logan County, Kingfisher County and Canadian County. Inasmuch as I have tried to start building a home, and I have found out that there are really very few restrictions as far as what is to be done on acreage out there, the main thing is your sewage problem, what you do with your sewage.

There's no really long-term or comprehensive plan to try to eliminate the pollution that we would have in Deer Creek that would contribute to the lake itself. As the mayor of Edmond told us, they have experienced, in the last 10 years exponential growth in Edmond, and I think this lends also to the northwest part of Oklahoma City, an exponential growth in that area would also lead to exponential growth in the problems of these not-point sources of pollution.

The quality of the water, like I said, if the quality is as important as quantity of the water, I myself don't want my children to be paying off a lake that's going to be third-rate. It's the third structure that we've considered in this area, Thunderbird, Arcadia and now Seward; and it's a third-rate lake as far as quality.

Also in the vein of quality, recreation the Oklahoma Central Water Planning, they say here in this report Comprehensive Water Plan, they say recreation is considered, and incidental to the water supply, fluctuation of the lake's level adversely affects recreational opportunities.

I think the recreation opportunities are slim, mainly because of the shallowness of the lake, the 16-inch evaporation we have every year here, not only would it make recreation, but it would act as an evaporation we have every year here, not only would it make recreation, but it would act as an evaporation camp to those pollutants that come into the streams.

With the water evaporated out it would leave these things in the lake, which eventually would build up. I would like to point to the pollution that we had in Lake Hefner, chloradane was found in the water and fishing was stopped there, at least for bottom feeding fish, and that's an instance of pollution that we probably have to consider in this area, you know, if we did build a lake.

Also, in response to alternatives for water sources, along with the Boswell reservoir, ACOG says that we used 10 percent of the recharge capacity of the Garber-Wellington, and it has the potential in recharging that an aquifer, we have a potential that we could increase that recharge by 10 percent, which basically gives us a break-even at current use.

So it's there to be used, if it's used properly, and I think this coning effect that has shown up is partially due to improper use of that resource, and that it's been shown that if they will move their wells to outlying areas and not try to draw off water at such a rate that would cause this, that salt water is there underneath, and it is a possibility we could have a leakage of that into the aquifer. That's about all I have to say.

Senator NICKLES. Thank you, Mr. Thomas. Would you pass the microphone?

STATEMENT OF L.C. CRONKITE

Mr. CRONKITE. I've been waiting to talk all day, I feel just like everybody else. My name is L.C. Cronkite. I own one quarter, been in the family ever since 1889, Emmitt Courtney took it, my granddad.

I got two more quarters they want to take away from us, I got a long-time lease on three. My other granddad, on the other side of the family, Granddad Cronkite, he conned an old boy into selling him a half section because his poor quarter that he took east of 74, plus $700, and he got a half section out of it.

Now this bunch wants the whole damn thing. So the dam is not going to work, it's not carrying enough water, it's not deep enough, it won't stop the flooding, but I tell you what will work, I know watershed dams work. My uncle had everything west of 74, he was

one of the boys going out trying to get these easements, and hell, they were doing it with no money.

That's the part that blew it, nobody was getting a cottonpicking nickel for their land, they was giving it. Logan County done a survey, I've got the survey here, 56 dams, Deer Creek, Cottonwood, Chisholm Creek, if they would have been put in, there was no way Guthrie was going to flood.

Each one of them would have water 365 days a year, it could have been channeled by Guthrie. Well, L.A. Cronkite, Clarence Tripple, from Seward, Norman Briscoe from the Deer Creek, is dead. Every damn one of them's dead, everybody waited until they died before they come up with a new one, but those men had foresight, long—soil conservation in Logan County, the Deer Creek boys, they knew it would work.

Man, when it got to coming up 30, 40 acres on some of them boys' land, they got swallowed, and John only had a—he didn't have control of the dam so John formed—he's got a son here today, and hell, I like both of them, they're good people.

I don't blame John for digging, they wasn't going to pay him a dime for the land that they was going to cover up. Do you see what I mean? Now, they had some kind of program at that time to pay John a decent, intelligent price for that land.

Hell, he would have probably sold it to them, not that he really wanted to, but he knew people in Guthrie needed to have the cottonpicking watershed to keep from washing them out every 5 years.

There's one gimmick, it would be another source of revenue to help build those; and Reagan don't have a very good civil defense program. I used to be marshal of Cashion, I got suckered into that in 1970, it took me 7 years to get out of it, I was sheriff of two counties and farming 1,500 acres, all done at the whole damn time I was babysitting the town.

The only thing is, if they put these in, if they want Oklahoma City No. 3—No. 4 on Russia's hit list. Those people don't know that hell—I got it about every year, I got all the civil defense information, and civil defense boys don't get paid a nickel; but in case everything blows up, he's in charge of law enforcement, fire department, hospital, don't get paid any money, but his words, God Almighty, Jesus Christ, that's it, he saves our law enforcement.

Most people don't know that. Man, you don't know what a damn fool is—I had four—I kept trying to con somebody into taking that job, see, hell, they'd back out when they saw how much responsibility they had. So this thing is well worth—I had 17 acres used to flood every 2 or 3 years on that own quarter in section 19, just regular as hell, everytime Cottonwood get up, it would flood, I'd lose 16, 17 acres of wheat.

Used to lose alfalfa, and I quit putting alfalfa down there. They put the watershed sheds in, just 16 in 1966, it stopped every damn bit of it, it stopped it all, I had 16 up above me.

Senator NICKLES. I appreciate your comments.

Mr. CRONKITE. I tell you what, instead of—they could bust one dam with one shot they can't bust 56 all at one time.

Senator NICKLES. That's a good point. Gentlemen, I want to thank you for your comments. One quick comment, Mr. Thomas,

you mentioned that in your opinion if the reservoir was built it would be third-rate, third-rate compared to Arcadia and Thunderbird in as far as quality, as far as——

Mr. THOMAS. Well, we don't know yet, I mean if we spent some time——

Senator NICKLES. I'm kind of asking a question. What makes you think that the quality would be less than Arcadia?

Mr. THOMAS. We don't know about Arcadia because we don't have it in yet. Now, the people in Edmond said that they can see now that the quality of water is even higher than what they projected, but we don't know if Arcadia is in line.

I know the demand figures that they show for the Seward project don't reflect Arcadia when it's on line, as far as recreation.

Senator NICKLES. Do you think there would be a demand for the water consumption?

Mr. THOMAS. There is going to be a demand in central Oklahoma for water, no doubt, but like I say, Boswell has excellent water, the southeastern part of Oklahoma has excellent water.

I don't know the cost effectiveness of it, but I do know when you have urban pollution and you try to get that out of water it's going to be expensive, and I don't know what the cost effectiveness of that is to pumping water from Boswell, I like say, we haven't even mentioned that, the large lake of excellent quality water, just to pump it out, we could use it as it is.

Senator NICKLES. We've talked about water transfer, and a lot of people may think that's the solution. But I might tell you that, as energy costs go up, water transfer can be very expensive, because you've got to run those pumps. Pumps are driven electricity or gas, and you start looking at gas bills, and electric bills to run those pumps, and those pipelines, and you still need a collection reservoir.

Mr. THOMAS. You know, I'm nc hydrologist, but I could say that probably those lakes could support a hydroelectric project that could allow enough electricity to be produced to pump that water back up here, if it was used solely for that purpose, one dam site was chosen just specifically for that purpose. I wouldn't doubt that you couldn't do it, just with the water we have handy.

Senator NICKLES. I appreciate very much your comments and the work that you've done, thank you. We'll go to our next panel. Our next panel we have Berniece Mills, Cashion; Raymond Redifer, from Cashion; Richard Cornforth, from Bethany; Cheryl Dorrance, vice-chairman of Deer Creek School Board.

I might at this time introduce some of the other people who have been with us. On my right is Russ Brown, who works with the Subcommittee on Water and Power, and also on my left, is Craig Gannett who also works on the committee.

I see Tom Cole, Tom Cole is the representative with Mickey Edward's office out of Oklahoma City, and I saw at an earlier time Dave Holiday, with Senator Boren's office, and he's not here, but he was here at least for the better part of this morning.

I might make mention, too, I invited Senator Boren to be with us, he wanted to be with us today to have input on this hearing, but he had some previous obligations and wasn't able to make it. I appreciate however both Senator Boren and Congressman Ed-

wards, having their staff here, and their willingness to participate, and also learn what they can from the hearing today. So Cheryl, do you care to start?

Ms. DORRANCE. I'm Cheryl Dorrance and I'm the vice-chairman of the Deer Creek School Board.

Senator NICKLES. Could you pull that microphone in?

STATEMENT OF CHERYL M. DORRANCE, VICE CHAIRMAN, DEEP CREEK BOARD OF EDUCATION

Ms. DORRANCE. We as a school board were interested in several aspects of this lake project that might affect our school district and the education that we would provide there if the facility is built.

We have looked at the different studies and those—although, there is a little section on education, it makes no mention of the local school districts or the impact that it might have on the school district. So I'd kind of like to go over these and they may apply to some of the other districts in the area, too.

Deer Creek School District, as that map that I have given you shows, is everything south of the yellow line there on the Seward, so the Deer Creek arm of the proposed Navina Reservoir bisects the district, it really just cuts it in two.

Our district has 72 square miles, approximately 8 miles of the district would be taken for the reservoir, and it would remove approximately 10 percent of our land area from the tax rolls of the school district. We are concerned and would request that additional studies address the following points.

The creation of a physical barrier which limits the access between the two sides of the district. The possible impacts on transportation cost to the district if we have to run buses around and about the lake. Any compensation for a loss of tax revenue to the local schools, which is a critical problem in our district, our budget is very, very tight, any loss is too much loss for us now.

Disruption of our student population, and the possible future developmental impacts on the land uses and the tax base around the area, as the lake is built and redeveloped. Then we have a secondary concern, this one is flooding.

Several of the speakers have mentioned that the flooding has pretty much been controlled on Cottonwood Creek but not on Deer Creek arm, and it's the Deer Creek arm of the lake that comes into our school district.

Flooding is a major problem in our district at the current time, and we anticipate that it's going to be further aggravated as we have more upstream development. The lake does not do much to solve that problem and we are concerned about what's happening now and in the future.

Several times, and usually more than once a year, we are forced to let out school as the waters begin to rise, because the school is located to the west of the lake and the majority of our population is located to the south and east side of the district.

So Deer Creek basically forms a physical barrier between the school and where most of our students live. The problem is that, when the water starts to rise we have to decide how long we can

wait before we can race the buses across Deer Creek, or have all the children spend the night at the school.

Yes, boats might be a good idea, supplemental appropriation for boats. So that's a problem, and there is a possibility for future injury for our students, or loss of life. If the bus becomes stranded in a small amount of water and the water rises quickly, we could have someone get caught.

We so far haven't had anything that dramatic happen but the potential is there, and we've had some near misses. Everytime it rains we have the concern for how long to wait before we let school out, when we let them out too soon we waste education time, if we wait until it's too late we can get stranded.

There are some things that we think could be done in the study of the Navina basin in this reservoir, which might help to alleviate the problem, and that is the following things. Any increase in upstream flooding, as the water flows from Navina Lake when it's full, is of concern to us. Is there going to be a backup because of the lake being there?

Second, what about increased runoff due to the rapid housing and commercial development of the tributaries of Navina Lake, which are located in the northwest parts of Oklahoma City. This is really a reference again, to the need of upstream flood control.

I notice that the man from the Farm Bureau mentioned this morning, that there are benefits to upstream flood control, because they can reduce the silt that builds up in the lake. This is something that is a good thing to consider in the study, it might help with stopping silt in the lake, and also help alleviate some of the flooding problems.

OK. The need to elevate additional roads above the flood plain, without causing a damming effect as the floods occur, so that we can get our buses and in and out across the lake. Then finally, upstream flood control measures which could alleviate flooding and possibly reduce sedimentation in the lake.

So these are concerns we felt were just totally missed in the initial studies, and I think they're probably concerns which apply to some of the other school districts which are in the area.

[The prepared statement of Ms. Dorrance follows:]

DEER CREEK PUBLIC SCHOOL
ADMINISTRATION OFFICE
ROUTE 1, BOX 137 • EDMOND, OKLAHOMA 73034

RONALD G. SCHNEE, Superintendent of Schools
PHONE 348-6100

January 6, 1984

NAVINA LAKE STATEMENT

The Deer Creek School District is a seventy-two square mile rural/suburban district located in northwest Oklahoma and southern Logan counties. The proposed Navina Reservoir bisects the district in a north-south line along Deer Creek for a distance of approximately seven miles.

The 1981 Seward Study documents the needed development of additional water resources for Central Oklahoma. However, there are several concerns including the effect on school districts that should be addressed in future feasiblity studies.

1. The 1981 study does not mention any impact of the reservoir on local education. We request that the following concerns be addressed in any future studies:

   a. The creation of a physical barrier which limits access between sides of the district.

   b. Possible impacts on transportation costs.

   c. Compensation for loss of tax revenue to the local schools.

   d. Disruption of the student population.

   e. Possible future developmental impacts on land uses within the area and tax base.

2. Flooding is a major problem within the district at this time. Alleviation of current flooding and future aggravation of flooding need to be addressed. Deer Creek and Bluff Creek are located between the school (N.W. 206th & MacArthur - map attached) and the majority of student homes to the south and east. School has had to be dismissed early or cancelled when flooding makes roads impassable. There is a potential for injury or loss of life if buses become stalled or stranded in rapidly rising waters.

Each major rain brings concern for how long to wait before sending children home; to close with each large rain would cause often needless loss of educational time; to wait too long means flooded roads blocking safe routes. Extended studies need to treat current and future flooding in the Navina basin and include the following:

a. Any increased upstream flooding as waters flow into Navina Lake when it is full (slowed run-off).

b. Increased runoff due to the rapid housing and commercial development of the tributaries of Navina Lake located on the outskirts of northwest Oklahoma City.

c. The need to elevate additional roads above to flood plain without causing a damming effect which floods additional land.

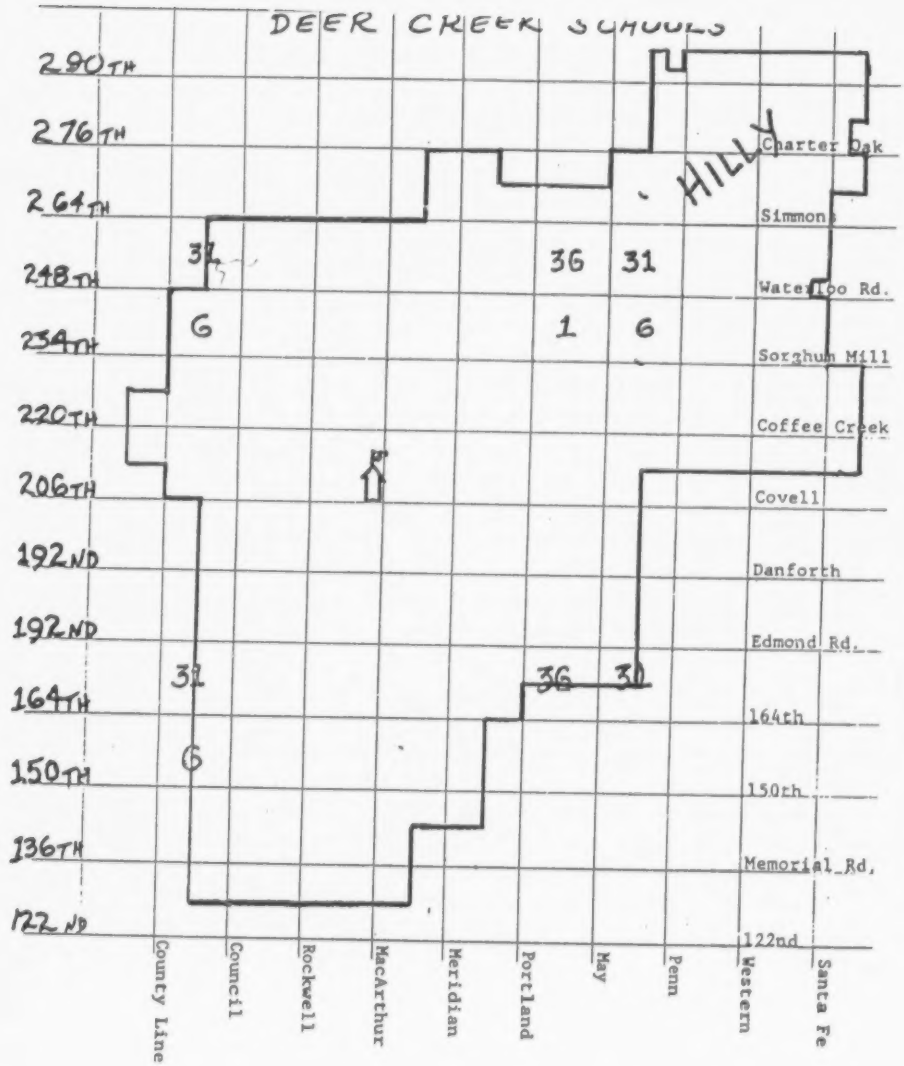
d. Upstream flood control measures which could alleviate flooding and possibly reduce sedimentation.

The Deer Creek Board of Education requests that these needs of area residents and the local community as well as the metropolitan impacts be addressed in any extended studies in regard to the Navina Reservoir drainage basin.

Respectfully submitted,

Cheryl M. Donahue, Vice-Chairman
Deer Creek Board of Education

Approved Deer Creek
Board of Education January 9, 198


DEER CREEK SCHOOLS
290TH
276TH
264TH
248TH
234TH
220TH
206TH
192ND
192ND
164TH
150TH
136TH
122ND
HILLY
Charter Oak
Simmons
Waterloo Rd.
Sorghum Mill
Coffee Creek
Covell
Danforth
Edmond Rd.
164th
150th
Memorial Rd.
122nd
31
6
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1
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36
31
County Line
Council
Rockwell
MacArthur
Meridian
Portland
May
Penn
Western
Santa Fe

Senator NICKLES. Thank you very much. Mr. Cornforth.

STATEMENT OF RICHARD CORNFORTH

Mr. CORNFORTH. My name is Richard Cornforth. I'm not here because I'm a farmer, and I'm not here because I own a home in the area, I'm here because I'm a taxpayer. What I'm concerned about is that this project is just really not in the best interest of the people that pay the bills.

The first thing I'd like to say is that there is a hazard in accepting assumptions as fact, and I would refer you to the Oklahoma comprehensive water plan, and this was put out by the Oklahoma Water Resources Board, and this is to develop virtually all of the State of Oklahoma's water resources, with an eye toward reallocatins, so that there's kind of a general water shift and everybody gets kind of their fair share.

In this report there is a constant and conspicuous reference to the year 2040, and so when the report talks about needs, it's not talking about needs right now or not in just a few years, but it's talking about needs in the year 2040 and I object to that.

First of all, as a taxpayer, I don't think it's rational or reasonable to ask people to make a large financial commitment based on something that's going to be projected 56 years away, I just don't think that's rational.

None of the other undertakings that we have in life, childrearing, or home ownership, or retirement planning, or nothing else we do, really encompasses a planning period that's 56 years away. I just don't think that anybody can really give us the really good factual input on what's going to be happening then.

So to start talking abut how dramatic needs are, and we've got to do this because, when we consider that the year we're talking about is 2040, I don't like that, I don't think that's fair. In addition to that, if we look at this report, regardless of what's done in central Oklahoma it won't be enough, that's what the report tells us.

So no matter how many of these projects are approved, and built, and paid for, there is still going to have to be this transfer from the eastern part of the State, again it's according to the report.

I don't really think—well, it's not fact, it's just based on assumption, and one thing that I would assume is, if their projections of population growth and water use are correct, one conclusion that you would come to from reading this report is that there has got to be someplace out there at the end of the next century when there is simply not enough water to sustain life, that's how it looks from the report.

A real curiosity about this report is that the report projects water use growing at a rate more than twice as fast as population, and yet there's really nothing in the report, that I can see, that really substantiates that.

So the curiosity to me, instead of this report being based on a lot of factfinding and trying to give us something rational that we can work with in terms of developing water resources, it has every appearance to me as if someone decided on a bunch of projects that they'd like to have, and then said, OK, put the facts under it, be-

cause I can't see any rationale to it. I mean, can you tell me why water use would grow twice as fast as population?

Senator NICKLES. I think Jim Barnett, the head of Oklahoma Water Resources Board is here, and I hope to bring him up at the conclusion of the hearing and ask him some of these same questions.

Mr. CORNFORTH. Well, I would venture that even if an expert opinion could give some reasoning to it, I still don't think it's a good idea for us today to make a large commitment, based on even what an expert's opinion is, because it's still an assumption, and it's still a very long-range assumption.

So I think there is definitely some misrepresentation of the needs that are constantly referred to, and in example, of the 10 communities that have expressed an interest in this project—I have done some research and I know some about each of those 10 communities, but in the interest of time I'll economize and just talk about 2.

First of all, I'd like to talk about Edmond. Edmond, of course, as everybody knows by now, has their own project, the Arcadia Reservoir. The information that I have has come from ACOG, and I think it's reliable information, I think it can be documented.

Strangely enough, the information as far as water use, and as far as current population, and projected population, the figures that I get for Edmond are just vastly different than the figures that the mayor was giving here this morning, and I can't figure out why his estimates of current projected population are approximately double those of ACOG, I think there's a real curiosity there.

It's also a curiosity why, according to—even assuming his estimates of population are correct, and imputing that into what he says is Edmond's water use, somehow the people of Edmond manage to use three and a half times as much water per person per day as people in Oklahoma City, according to the figures he gave.

Senator NICKLES. Very thirsty people.

Mr. CORNFORTH. Very thirsty, very dirty, they water their grass, they fill their pools, something is going on there; but at any rate, I think ACOG has the factual data. I think one of the hazards that we're exposed to in what we're doing here is a lot of people come and say a lot to things, and how much of it is assumption.

I think that as someone who helps pay the bills, I have a right to make my own assumptions as well; but I think an interesting statistic that comes from ACOG, that even if Edmond grew to the population that ACOG projects, not the mayor but ACOG, projects, they would still only be using about half of the productive capacity of Arcadia Reservoir.

So they not only have the short run of that year, projected as 2000, they not only have it, they not only have the expense of it, in addition to that, they have a backup resource in the form of water wells.

Even if they reached the population estimates that are projected by ACOG by the year 2000, they would still be only using about half of the productive capacity of that lake.

So that is one example I use. The mayor can cry and a lot of other people can shout, but I don't think that Edmond can demonstrate a need for that water, and another community, Guthrie, it's

easy for Guthrie to make an emotional indication for this lake for several reasons, but I think it's impossible for Guthrie to make a case for becoming part of this project, for any reason, and certainly not for water need.

The reason for that is, in this court settlement that has been alluded to a couple of times between Guthrie and Oklahoma City, where Oklahoma City was found to be guilty of polluting their water, Oklahoma City has an obligation, within 2 years from the end of that settlement, which I believe was last summer—I apologize for not knowing the date of it, but within 2 years from the end of that, when that court decision was made, Oklahoma City has to build a pipeline.

They have to acquire it, they have to build it, they have to maintain it, they have to expand it as needed. Guthrie's only obligation—Guthrie has no capital obligation in this whatsoever, Guthrie buys water, not at a user rate but at a wholesale rate, so there's no way that any of their project can compete with that as far as acquisition of water.

So people come up here and they say, oh, we need the water, I don't think so. I say that——

Senator NICKLES. Are you—I don't want to interrupt you.

Mr. CORNFORTH. There's a little more I have to say. I think that the need has been just simply overdramatized, because if people can be motivated, if they can be charged emotionally, if they can be made to accept that these assumptions are facts, and boy, we just got to do something, then it lends a lot of momentum to the project.

There are other communities that I won't go into detail about how their water needs are satisfied, but the summation that I would say about all of these 10 communities that are supposedly interested, and ACOG will back me up factually on this, there is no community that can economically justify this project, as compared to other water resources—they just can't.

There is still a little bit more I have to say. I'll try to make it quick. First of all, central Oklahoma has two tremendous water resources that have been downplayed, and there's even been an attempt on a part of one supposed expert to really discredit the viability of one of central Oklahoma major resources, and that's the aquifer.

I talked to a different expert, and the expert that I talked to told me that the aquifer is approximately the size of Lake Eufaula, and I said to this expert, I said, what's the possibility the aquifer would become unusable because of pollution?

It's practically nil, it's virtually impossible, because of the protective measures and the concern about it. I said, well, what about the possibility of overuse, what about using it too fast? He said, no, the possibility is just practically nil; it could probably provide water needs for 150 years.

As regard to the fact of the aquifer as a resource, I think it's just simply been discredited, I think it's indeed much more of a resource to central Oklahoma than it's been portrayed to be. Central Oklahoma, in reality, is not really a dustbowl. When you get up in the airplane to fly away, if you look down, you'll see the earth cov-

ered with—it looks like mirrors, but it's rather down there everywhere.

Central Oklahoma is really water rich. For example, Oklahoma City is water rich. Oklahoma City has a system that most people know about, with their lakes and reservoirs—they're constructing a reservoir in McGee Creek. They've also got an acquisition project on west Elk Creek, so there's another reservoir that, to my best recollection, hasn't even been mentioned here, that's part of central Oklahoma's water system.

As far as additional water resources that Oklahoma City has available, Oklahoma City has applied to receive the water rights to the Kiamichi River, they've not been granted, and the people who would grant those rights are the Water Resources Board, they haven't granted those rights because Oklahoma City can't demonstrate the need for the water.

Oklahoma City gets water from Canton Lake, and they have a 5-year renewable agreement to get water. They've not been granted the final rights to that water, because again, they can't demonstrate that they need it. So on the short run, the need has just simply been misrepresented, and on the long run, there may be some need out in 2040, but I'm for waiting until about 2020 to look at it.

One final brief statement as far as this watershed is concerned, there obviously needs to be a project, there needs to be a project for flood control. Whatever water resources we have, we need to conserve them, to impound them, to keep them.

Recreation is not necessarily a bad thing, but the idea that this particular lake meets all those needs is just simply not true. Smaller lakes would do a better job of everything that needs to be done here, then this one big lake would do, and there's some technical reasons for that.

For example, in the case of flood control, if you have a so-called main stem reservoir, and it is said to overtop during a flood condition, like we had last fall, the flood bypasses that lake and proceeds downstream. If you have a watershed project, like Mr. Cronkite was referring to, and those lakes are said to overtop, they release in different areas at different times, disintegrating the effect of the flood.

As far as water resources are concerned, a community would be far better off, in my estimation, and there's a technical reason for just simply having their own individual water project as opposed to what I would refer to as a government project or a bureau project.

The reason for that is, it's a matter of who is in control, who designates how it's used. If a small community needs water, if they make their own lake, they control it, they designate how it's used. If the Federal Government, or a branch of it, makes a lake, they designate water levels to water use, and those people in the local community lose control.

As far as recreation is concerned, a smaller lake that—smaller lakes tend to have a better shape, they tend to have a better access, and they tend to have higher fish populations. As far as the gentleman sitting right here and was contending with the question of water quality, water quality in a lake like this is related to the depth of the lake itself, because if you have a relatively shallow

lake, perhaps about 20 feet in most areas, or less, the effective wind—and we do have a lot of wind in central Oklahoma—on that water, redistributes benthic materials in this water, so that you constantly have a turning over of that water, and you have silt in the water particles.

The water that he was talking about, which would come from the eastern part of the State, of course, with a deeper lake, you have the sediment out of those particles. So it's not necessarily that the water would be bad because of that, but perhaps it's easier to contend with the process of rendering a pure glass of water. That's enough.

Senator NICKLES. Thank you very much, I appreciate the statements you both made. We've got two more panels so I'm going to have to go real quickly. But I would like to concur somewhat in your statement, do we need to be looking at the year 2040.

Well, we certainly need to be looking at the year 2000, and that's only 16 years from now. Some contend that we'll be having a problem in about 16 years from now. In many cases it takes that long, 15 to 20 years, to provide additional water capacity. It takes that long a lot of times; not so much if you're dealing with a small lake, but if you're dealing with a larger project, you are talking about quite a bit of lead time, so we do have to be looking ahead.

You mentioned we ought to be looking at 2040, around 2020. We should be looking a little bit beyond just what's going to happen in the next couple of years or we could be in a situation where you would stymie any growth whatsoever, or you might have some severe rationing problems in your townships or your water districts.

Mr. CORNFORTH. Yes, but while we're searching for these facts and we're saying that, let's identify who these people are that have these needs, and why, and let's be specific.

Senator NICKLES. Well, I think there are some demographics where you can get facts, you can look at population trends, and you can look at the amount of water consumption per person, and you mentioned that maybe some people in some area would be consuming a lot of water and so on.

That's, again, one of the reasons why we're having these hearings, so we can get into the facts and try to find out what is going on. I will echo one of the things that you started out with, you did have some concern for the taxpayers, and I'll tell you I share that concern as well.

I might mention, too, though, as far as a project like this, you mentioned some other possibilities such as the importation of water, greater utilization of the underground aquifers and so on, our committee is also looking at underground aquifers.

I can tell you I'm not as familiar with Garber-Wellington as I am some of the other aquifers, but we're having problems, and particularly farther west, out in the Panhandle, where there is a great deal of irrigation.

We have to look at that or we're going to see—you mentioned we're not in a dustbowl here, but you could see a dustbowl in the farther western parts of the State if the aquifer continues to deplete. We could have some very significant problems, and you could

see a lot of farmers watch their farms blow away. We don't want to see that happen either.

Mr. CORNFORTH. Well, understand that I'm not contending that water is not an important concern to central Oklahoma, I think it certainly is; but I think that this particular lake and the representation of the need, and the utilization of this lake and everything, is just simply a misapplication, I don't think it's good for us.

Senator NICKLES. I appreciate your statement. I might say another thing, if action on this lake is probably not taken within the next several years, then it will be too late to have any action ever taken on it, because the area is developing.

That is an ongoing process, you'll see a lot more developments, and the cost may become—it may already be prohibitive.

I've mentioned my concern in that area, but as you see greater and greater development, Mother Nature only has so many tracts that are potential reservoir sites. This one, after a certain number of years, will not be feasible.

Mr. CORNFORTH. We'd really be in a mess if we built, then not all encompassing, and that was the last thing that we could do, we'd really be in trouble then.

Senator NICKLES. I appreciate that. Thank you very much. Our next panel.

Mr. Scott, do you care to take off?

Mr. SCOTT. Thank you Senator Nickles, I'm Jack Scott.

Senator NICKLES. I was thinking of you about 3 hours ago when I called your name.

STATEMENT OF JACK SCOTT

Mr. SCOTT. I'm Jack Scott, I'm an architect and professional engineer, a civil engineer.

Senator NICKLES. We might have a little more order if we could. Please show our witnesses a little more consideration.

Mr. SCOTT. You're our beloved conservative Senator, you're mine and most of the people in this room, and we are depending upon you, like we did when we elected you, to resist the Washington Post, the New York Times, and the bureaucracy.

We, most of us, feel that this is a creation of the bureaucracy, it has no justification whatsoever, and we believe that if you complete this investigation that's what you're going to find.

Now, first I've got a couple of facetious comments to make, and one is, that if you're willing to spend $270 million on this lake, you could buy the whole city of Guthrie and move it to the other side of I-35 and have no flood problem whatsoever.

Senator NICKLES. A lot of people may be mad at that.

Mr. SCOTT. But they would have a complete brand new city with concrete streets, brand new buildings, and everything else, and it wouldn't cost the $270 million, you would save a little money. The other one is, with the Nation with a $200 billion deficit a boondoggle of this kind is the last thing in the world that we really should be considering.

I can tell you absolutely that that lake is not needed now, it isn't going to be needed in 2040, or any other time, because—there is a very serious water problem in Oklahoma, but this thing is like

taking an eyedropper and dropping a drop in your tea cup, nobody would even know it was there compared to the vast problem of water in Oklahoma.

The real reason that I wanted to talk to you was historical. If you go back to Oklahoma City's history, back in the 1920's, they voted about a $4 million bond issue and built Lake Overholser, all on their own, they didn't need the Bureau of Reclamation, they didn't need the Corps of Engineers, they didn't need anybody.

They voted the bond issue and built their own dam, created their own water supply. They said, we're got our own town, let's fix it up. So in 1946, 1947, 1948, something like that, they said, listen, we're going to have trouble—and I grew up in Oklahoma City, so I'm aware of these things.

Every once in a while they said, don't water your grass too much because we're short of water, and we're going to fix that. So on about 1947 or 1948, they built—they voted about $12 million and built Hefner Lake. Man, we had water coming out of our ears for years.

In the early 1960's, about 1963 or 1964, they said, you know, we've got plenty of water now—and these are honest officials, these are elected officials, chamber of commerce, E.K. Gaylord, everybody, they said, in a few years we're going to have trouble, we don't have it now, but we're going to have trouble, we need to build us a trust and sell $60 million worth of bonds, and build Atoka Lake and Stanley Lake, and pump the water from eastern Oklahoma right here in our backyard, and they spent the $60 million, and they got plenty of water.

This is all being done without the help of Uncle Sam. If Guthrie wants water let them vote a bond issue. They've got a history of voting bond issues down, let them vote one up and build their own lake, wherever they want to, just for the water for Guthrie.

They don't need to worry about Edmond, and why should the U.S. Government, and taxpayers all over the United States, be concerned whether Edmond is a town of 30,000, 40,000 or a 100,000, why should they care, why should it be part of their responsibility to spend U.S. tax money to see that Edmond has growth.

Let the people who live on the south side of Oklahoma City, or wherever there is water, let them over to Tulsa, wherever there is water let them move there, they don't have to live in Edmond, let them move somewhere else.

Why should the U.S. Government—well, 270 isn't going to catch it, you know, $270 million is what we're talking about now, if we drag this thing out another 5 or 6 years we're talking about $400 or $500 million to get this thing done, because it will just expand, expand, expand.

I'm sentimental about my little piece of land, where the water is going to be about 5 feet in the living room, and I could float in there, but the ceiling height is only 10 feet and bedroom is only 8, so we're out. I like that place, but I'd be glad to give it up if we really needed this.

If we really needed this I'd be the first one to walk down and say, take it, I wouldn't care. If we needed the water out of that little creek, I'd be the first one to say, take it, but this is useless because it's not going to do anything for anybody.

Oklahoma City has got water to sell to Midwest City, Edmond, Yukon, El Reno, anybody that will buy it, they've got water to sell, they're trying to sell it. They're going to sell it wholesale to Guthrie so that Guthrie City Council can sell it retail to the residents of Guthrie, and that's based on the legal situation, the adjudication that was made.

OK. They have taken care of their own water problem, Edmond should take care of their own problems. If they really want to grow they should vote bond issues and build their own lake. They've got Arcadia, they've got Federal money to do that.

Now, they're in pretty good shape, and they're gonna be in pretty good shape for a long time. If they need more water they should either buy it from someone that's got it, or go out and build their own lake.

They shouldn't come to you, a U.S. Senator, and say, give us the tax money from the people in Massachusetts to build us a dam so we can expand our city. It's just not right, and it's not right for the people in Massachusetts to get a little dam going up there and have people in Oklahoma pay it for them, especially when we can't even balance our budget.

I know you fight that problem all the time. It just doesn't make sense to come up and say, well, we're going to put $3 million down here for a little lake in Oklahoma that nobody wants, based on the fact that the Bureau of Reclamation has got to have something to do.

Now, give me just a second more, I'm going to give you just a little more history. We had a bunch of meetings like this back in 1978 or 1979. I've been on my property for 8 years, and we had the Corps of Engineers in here giving us this big sales pitch about how they're going to solve all the flood problems.

We had the chamber of commerce from Oklahoma City telling us about the fantastic recreation we will have on this lake, and we had the Reclamation, of course, telling us what a great water supply we would have. So we chopped the Corps of Engineers right in two.

This thing is like a three-headed dragon, you just get one head cut off and think you've got that dragon, and two more heads pop up somewhere else. Right now we've got another head popping up, that's exactly what happened, we had this thing killed deader than a doornail.

The Corps of Engineers said, you're right, when we pointed out the facts to them. We said, are you going to leave that lake completely empty so we can ride a horse across it, so that when the rains come it's going to fill the lake instead of flooding out Guthrie? No, no, no; the lake will be used for water.

Well, if it's full of water when the flood comes, where's the flood going? Well, of course, if it's full of water it will go down to Guthrie. Well, so there's not going to be any flood control, is there? Well, no. So that got rid of them.

Then the chamber of commerce in Oklahoma City, man, they were really on us about what a great recreation place this was going to be. So I asked them, I said, can I go swimming in Overholser? Well, no, that's a water supply. What about can I go swimming in Hefner, can I go water skiing on Hefner?

Well, no, no, the State health department, they won't let you swim in that lake because that's a water supply. Oh, I see. What about any lake that Oklahoma City has? Why would you do that to a lake that's going to be used, that has a water stream, that has cows and horses and coons, and every other kind of animal, up the creek, and a coyote, that watershed is coming down in that water all the time.

You mean a human being that drags his foot in the water from the side of his boat is somehow contaminating the lake? Well, that's the health department, they make their rules on that. So this lake, nobody is going to get to have recreation on that lake, the health department is going to come along and say, you can't water ski and swim on that lake because it's being used for water supply, for people to drink, that don't rule it out.

So all of the sales pitches that we got from the Bureau, the Corps of Engineers, the chamber of commerce, were all just completely beat to death, and that's the reason we thought we had that dragon nailed down.

Now, well, they got rid of the other two, they got rid of the chamber of commerce, they knew that wouldn't sell, and they got rid of the Corps of Engineers. So now it's just down to the Bureau of Reclamation saying, we're desperately in need of water in central Oklahoma; but this is a thimble, it's a thimble.

Oklahoma City's got more water right now than they know what to do with, they're trying to sell it everywhere they can, every community around Oklahoma City, they're out there with salesmen trying to sell water.

Senator NICKLES. We're going to have to move on because I have another panel in addition to this panel.

Mr. SCOTT. OK. So it just makes no sense to pull that land out and put a little dribble of water out there in the middle of nowhere that isn't going to help anybody. If Oklahoma City—if they used that water, used it for a week, the lake would be gone in a week if Oklahoma City piped into it, and then that's all that is left, so it's not going to do any good to us.

Senator NICKLES. Thank you. Do you have some comments?

STATEMENT OF MARY SCHNEIDER

Ms. SCHNEIDER. Yes. My name is Mary Schneider, I live in Cashion. I was raised 2½ miles south of Cashion in Kingfisher County. A portion of my mother's place is to be taken if the lake is approved, it would completely deplete her farmland as a farm, it would divide it in two, and no water supply whatsoever for her farming operation.

So it would just make her land worthless, and that's kind of why I got involved in it. I kind of made some statements about what the main purpose was, and I did a little bit of reading, and there were six counties included in the usage of this water area.

I notice that Kingfisher County was negated, even though her place is included in it, and I don't—I'm kind of like the gentleman sitting next to me, I don't think the water supply that this lake would have would supply the needs that it is hopefully planned to be.

Flood control, the information in the literature, there's no flood control plans in there that, you know, it actually stated there. The biggest thing that I got out of the meeting at Deer Creek the other night, and from observations and listening to conversations of other individuals, is recreation for Oklahoma City area people.

One of my biggest concerns is destruction of natural habitat, there's not been much said about. There's a lot been said about the farming industry along the waterway that will be destroyed, the top grade crop and pasture land would be destroyed and irreplaceable, the crops, and the tame and wild animal production and conservation would be totally destroyed, displacement of human inhabitants of the area the lake would encompass, would be destroyed, they would have to be moved somewhere else, and could not find the land of the same value elsewhere to be replaced, too.

The life cycle of the whole area would be in a turmoil, it would just be, it would be—you couldn't get the life cycle back together like it should be. Another great concern of mine is the sewage contamination. If you've ever been down here to Deer Creek where the sewage plant, the Deer Creek facility, pumps there, supposedly, treated sewage water into Deer Creek, I wouldn't want to drink it, it would probably poison me, it's green and it looks like it's got soapsuds in it.

Like Mr. Kinney said, his cows won't even drink it, so how would it be purified enough for human consumption? Also, Chisholm Creek is going to go—it's going, the sewage is going to be transported into there. These people in this exclusive residential area aren't going to want sewage in their backyard, because of the odor and contamination, and so forth.

Has anybody ever thought about an amoebic dysentery, how hard that is to control, or coccidiosis, and different other types of diseases from fetal contamination. Then there's that Federal and State deficit, the State of Oklahoma doesn't even have enough money to buy Xerox paper for our poor old Xerox machines, much less pay the employees livable wages.

Senator NICKLES. If we can keep our remarks kind of short; I'm not going to be able to get our next panel in if we don't.

Ms. SCHNEIDER. Roads and highways was another thing I had written down, the elevation of 74 out here, that would be a great cost. Destruction of the oil and gas industry in the area, and the one thing that concerns me are the old plugged wells that there's no records kept of, that were plugged with drilling mud, which would be covered up with lake water, these will come out and contaminate the water.

Just the general destruction of the whole area, the economy; it will destroy the town of Cashion and its economy, because there will be no way to feasibly get around, and the schoolbus routes, like the lady from Deer Creek said, it will do that same thing in the Cashion School District.

I just think the cost is prohibitive for what benefit there would be to gain from it. My mother became ill and she had to leave, but I would like to read one little small portion of what she wrote.

Senator NICKLES. Yes.

Ms. SCHNEIDER. And it's her third concern, but I'm going to hand it in. She said, the third concern I have is the sentimental value of

this land for me, my children, and my grandchildren. My husband's grandfather bought this farm in 1893, with only a cottonwood tree for a roof and a prairie trail to travel on.

Four generations have made it their home; we have instilled in our very bones the love of the land, and respect for nature, the preservation of wildlife, and indeed, the pioneer spirit, for this is our heritage; and I'd like to conclude with that.

[The prepared statement of Ms. Schneider follows:]

SEWARD PROJECT OKLAHOMA
CONGRESSIONAL HEARING COMMENTS
By Mary E. Schneider
JANUARY 10, 1994

I. WHAT IS THE MAIN PURPOSE OF THE RESERVOIR?
A. WATER SUPPLIES FOR TOWNS - SOME MANY MILES AWAY
1. IN THE SIX COUNTIES LISTED AS WATER DEFICIENT AREAS KINGFISHER COUNTY WAS NEGLECTED, YET AT LEAST A LARGE VITAL PORTION OF ONE FARM IN KINGFISHER COUNTY IS INCLUDED IN THE PROJECT
2. WOULD A LAKE OF THIS SIZE AND SUCH SHALLOW DEPTH CARRY THE WATER USAGE WHICH IS PROJECTED NOW BUT WHICH WILL BE OUT DATED AT THE TIME THE LAKE WOULD BE READY FOR USE FIVE TO FIFTEEN YEARS FROM NOW?
B. FLOOD CONTROL.
1. THERE ARE NO PROVISIONS MADE IN THE PLANS OF THIS PROPOSED LAKE FOR FLOOD CONTROL
a. FLOOD CONTROL IS ONE OF GUTHRIE'S LARGEST PROBLEMS
C. RECREATION -
1. IT HAS BEEN OBSERVED THAT THE MAIN PURPOSE FOR THIS PROPOSED LAKE IS RECREATION MOSTLY FOR THOSE IN AND AROUND OKLAHOMA CITY.
II. DESTRUCTION OF NATURAL HABITAT
A. FOR THE FARMING INDUSTRY ALONG THE WATERWAYS

TOP GRADE CROP AND PASTURE LANDS WOULD BE DESTROYED AND IRREPLACIBLE.

A. CROPS, TAME AND WILD ANIMAL PRODUCTION AND CONSERVATION WOULD BE DESTROYED.

B. DISPLACEMENT OF HUMAN INHABITANTS.

C. THE LIFE CYCLE OF THE AREA WOULD BE BADLY AND WOULD NOT RECOVER FROM THE IRREVERSABLE DAMAGE.

III SEWAGE CONTAMINATION

A. AT PRESENT SEWAGE FROM A SEWAGE TREATMENT PLANT OR PLANTS IS RUNNING INTO DEER CREEK. IT IS MY UNDERSTANDING THAT CATTLE WILL NOT DRINK OF THIS WATER.

B. PROPOSED TRANSFER OF SEWAGE TO CHISHOLM CREEK IN AN EXCLUSIVE HIGH COST HOUSING DEVELOPMENT.

1. BOTH DEER CREEK AND CHISHOLM CREEK FLOW INTO THE COTONWOOD CREEK.

D. CONTAMINATION OF ALL WATER SOURCES BY HARMFUL MICROBIALS AND/OR DELETORIOUS CHEMICAL COMPONENTS.

1. WOULD THIS WATER BE SAFE FOR HUMAN AND ANIMAL CONSUMPTION AND/OR BODILY CONTACT.

a. DISEASE BEARING

IV FEDERAL AND STATE FUND DEFICITS

A. WHERE IS THE PROPOSED FUNDS GOING TO COME FROM?

B. ON THE STATE LEVEL SOME STATE EMPLOYEES HAVE TAKEN PAY CUTS TO KEEP THEIR JOBS.

V Elevation and repair of State highways and roads.

VI Destruction of the Oil & Gas industry in the area.

A. Destruction of the tax dollars both State and Federal.

VII Deterioriation of the Township Casnion and its School System.

A Due to the placement of the lake.

B. Due to the loss of tax dollars.

VIII Destruction of the whole area and its economy.

IX Pipelines.

A. There are many pipelines in the area which would have to be moved at a high cost.

X Tremendous increase in crime.

A. Crime is already on the increase due to the large number of people in the larger towns and cities comeing to the outlying areas.

XI Historical Value and Relicts.

A. Much of the land in and around this area holds historical value as to the Marina and having this state a state.

B. Distruction of many of the roots of many of the residents of this area.

XII Cost and feasibility of this would be so out of reach it would be impossible to put a dollar figure on the final cost of building this lake or the destruction it would bring in its wake.

Senator NICKLES. Thank you very much. Dean?

STATEMENT OF DEAN SCHIRF, MANAGER, WATER DEVELOPMENT FOUNDATION OF OKLAHOMA

Mr. SCHIRF. Thank you, Senator. My name is Dean Schirf, I'm manager of the Water Development Foundation of Oklahoma. Senator, what I'd like to do is just read parts of a prepared statement that I have here and depart.

I'd like to address something else relative to Oklahoma City in particular. The Water Development Foundation of Oklahoma, Inc., has long supported the continued development and preparation of a truly statewide water plan for the State of Oklahoma, for central Oklahoma.

The foundation considers an adequate water supply essential if urban growth and continued industrialization is continued; quite simply, more people means increased demands for water.

Central Oklahoma is located in a water deficient area of our State, service and ground water is not produced in sufficient quantities, and in fact, ground water capacity is being depleted quicker than can be replenished.

With this in mind, the Water Development Foundation wishes to express its support for the continuation and study of the proposed Seward project, to be located in central Oklahoma, just north of the Oklahoma City metropolitan area.

The April 1, 1980, Oklahoma comprehensive water plan, published by the Oklahoma Water Resources Board, includes the Seward project as part of the proposed regional plan for development of the central Oklahoma area. I'd like to address, Senator, the water problems that Oklahoma City faces, relative to where it is now, what it has done in the past, and what it will do in the future.

I think in total, Oklahoma City has done a good job in planning its water resources in the past. The gentleman to my right relates a bond issue that occurred in the late 1950's of $60 million.

I asked this week, someone who I consider an expert in the field, what it would take to duplicate that system, if it was to be done today, and it was somewhere in the area of $400 million to $500 million to duplicate that system.

This gentleman here indicates that we have an excess of water presently in the Oklahoma City inventory system, that may be true today, but as Glenn Sullivan testified this morning, in panel No. 1, even with the addition of McGee Creek to come onstream in the fall, I believe, of 1985, the water projections go out to about 1995.

We have tried to help our neighbors, as suburbs, that has always been something that Oklahoma City has always done, but I don't look for that to continue, in talking to the people that know something about it in Oklahoma City.

If we have such an excess supply in Oklahoma City, I don't know why we approached the Bureau some years ago, to do McGee Creek, because 90 percent of that cost is having to be paid back through user fees for McGee Creek. So that was a decision that had to be made, and it was made, and we will live with that.

Quite simply, the foundation that I represent looks at those projects, and I agree with you, Senator, that the projects like Seward, the areas where they can be implemented in this State, in this part of the State, are rapidly running out.

We support S. 2098 that you have presently in Congress, as introduced last year. We agree with some portions of that, the reimbursable cost of that, that should all be taken into consideration, because we are also concerned about the costs of these items.

I would just end by saying, as we look out and look at at the alternatives to projects like Navina, what would it cost if we didn't do anything now to hand to our children that come behind us, probably, so we can sustain our lifeline. That's all I have to say.

Senator NICKLES. OK, thank you very much. The next panelist we have is Jim Barnett, Oklahoma Water Resources Board. Mr. Barnett, we appreciate your willingness, I understand you had an earlier meeting and couldn't make it this morning, but I appreciate your coming this afternoon.

STATEMENT OF JIM BARNETT, OKLAHOMA WATER RESOURCES BOARD, ACCOMPANIED BY BILL SECREST

Mr. BARNETT. Thank you, Senator. With me today is Bill Secrest, who is a member of our board. We have a nine-member citizen board who act as my boss, so he's here to observe the proceedings.

I would say that I'm sorry to have missed this morning's part of the program, but I do have a statement prepared and I'd like to read it. I would be prepared to answer any questions that might have come up during the day that you think would be appropriate for me to try to address.

The Oklahoma Water Resources Board, as the water resources agency for the State of Oklahoma, has identified the Seward project as an integral part of central Oklahoma's long-range water development needs. The Oklahoma comprehensive water plan, prepared by the Board, adopted by the State legislature, recognizes that the project is needed for water supply, recreation, flood control, and fish and wildlife habitat.

The Seward project is essential if the goals of the water plan to promote regional water development and to satisfy the area's long-range needs are to be realized. This valuable source of water could effectively augment existing supplies for many years, as phenomenal population and commercial growth in Oklahoma, Logan, Canadian, and Kingfisher Counties has placed heavy demands on existing systems and accentuated the need to plan for the future supplies now.

The Seward project, consisting of the Navina Dam and Reservoir, is the board's No. 1 priority among Bureau of Reclamation projects in Oklahoma. The Navina site is the last remaining good reservoir location near the central Oklahoma metropolitan area, which could provide a significant water supply yield, recreational opportunities, and flood control benefits.

Consequently, the board has actively participated with the Bureau of Reclamataion in several study efforts, including water quality sampling and analysis, producing demand and supply pro-

jections, and coordinating State and local public informational activities.

A report including the State's findings regarding this matter is hereby submitted. I apologize I've only got a couple of copies with me today, Senator, but we'll be bringing some more in, we just xeroxed them today.

Senator NICKLES. What's the name of the report?

Mr. BARNETT. It's the State report on Seward project and Navina Dam and Reservoir, and it documents our findings in the areas of study that we've been participating with the Bureau on. The OWRB has also indicated its willingness to sign a repayment contract with the Bureau for water supply storage, in order to assure the Federal Government that water supply costs would be repaid.

As potential water users come on line they would be expected to assume their proportionate share of the board's contractual obligation by entering into repayment contracts with the Bureau. From a flood control standpoint, the board feels strongly that flood control must be afforded to the area by the Seward project.

The board has stated a willingness to cost share on any portion of the flood control costs determined not to be economically justified under Federal principles and guidelines. Severe flooding along Cottonwood Creek has been an all to frequent occurrence in years past, and the board believes it has an obligation to alleviate that problem.

In conclusion, the Oklahoma Water Resources Board would like to see the Seward project receive congressional authorization as soon as possible, so that further detailed planning work may be conducted by the Bureau.

Therefore, the board hereby states its full and complete support for early passage of Senate bill 2098.

[The prepared statement of Mr. Barnett follows:]

OKLAHOMA WATER RESOURCES BOARD STATEMENT OF SUPPORT SEWARD PROJECT

THE OKLAHOMA WATER RESOURCES BOARD, THE WATER RESOURCES AGENCY FOR THE STATE OF OKLAHOMA, HAS IDENTIFIED THE SEWARD PROJECT AS AN INTEGRAL PART OF CENTRAL OKLAHOMA'S LONG-RANGE WATER DEVELOPMENT NEEDS. THE OKLAHOMA COMPREHENSIVE WATER PLAN, PREPARED BY THE BOARD AND ADOPTED BY THE LEGISLATURE, RECOGNIZES THAT THE PROJECT IS NEEDED FOR WATER SUPPLY, RECREATION, FLOOD CONTROL AND FISH AND WILDLIFE HABITAT.

THE SEWARD PROJECT IS ESSENTIAL IF THE GOALS OF THE WATER PLAN TO PROMOTE REGIONAL WATER DEVELOPMENT AND TO SATISFY THE AREA'S LONG-RANGE NEEDS ARE TO BE REALIZED. THIS VALUABLE SOURCE OF WATER COULD EFFECTIVELY AUGMENT EXISTING SUPPLIES FOR MANY YEARS AS PHENOMENAL POPULATION AND COMMERCIAL GROWTH IN OKLAHOMA, LOGAN, CANADIAN AND KINGFISHER COUNTIES HAS PLACED HEAVY DEMANDS ON EXISTING SYSTEMS AND ACCENTUATED THE NEED TO PLAN FOR FUTURE SUPPLIES NOW.

THE SEWARD PROJECT CONSISTING OF THE NAVINA DAM AND RESERVOIR IS THE BOARD'S NUMBER ONE PRIORITY AMONG BUREAU OF RECLAMATION PROJECTS IN OKLAHOMA. THE NAVINA SITE IS THE LAST REMAINING GOOD RESERVOIR LOCATION NEAR THE CENTRAL OKLAHOMA METROPOLITAN AREA WHICH COULD PROVIDE A SIGNIFICANT WATER SUPPLY YIELD, RECREATIONAL OPPORTUNITIES AND FLOOD CONTROL BENEFITS. CONSEQUENTLY THE BOARD HAS ACTIVELY PARTICIPATED WITH THE BUREAU OF RECLAMATION IN SEVERAL STUDY EFFORTS, INCLUDING WATER QUALITY SAMPLING AND ANALYSIS; PRODUCING DEMAND AND SUPPLY PROJECTIONS; AND COORDINATING STATE AND LOCAL PUBLIC INFORMATIONAL ACTIVITIES. A

REPORT INCLUDING THE STATE'S FINDINGS REGARDING THESE MATTERS IS HEREBY SUBMITTED.

THE OWRB HAS ALSO INDICATED ITS WILLINGNESS TO SIGN A REPAYMENT CONTRACT WITH THE BUREAU FOR WATER SUPPLY STORAGE IN ORDER TO ASSURE THE FEDERAL GOVERNMENT THAT WATER SUPPLY COSTS WOULD BE REPAID. AS POTENTIAL WATER USERS COME ON-LINE, THEY WOULD BE EXPECTED TO ASSUME THEIR PROPORTIONATE SHARE OF THE BOARD'S CONTRACTUAL OBLIGATION BY ENTERING INTO REPAYMENT CONTRACTS WITH THE BUREAU.

FROM A FLOOD CONTROL STANDPOINT, THE BOARD FEELS STRONGLY THAT FLOOD CONTROL MUST BE AFFORDED TO THE AREA BY THE SEWARD PROJECT. THE BOARD HAS STATED A WILLINGNESS TO COST-SHARE ON ANY PORTION OF THE FLOOD CONTROL COSTS DETERMINED NOT TO BE ECONOMICALLY JUSTIFIED UNDER FEDERAL PRINCIPLES AND GUIDELINES. SEVERE FLOODING ALONG COTTONWOOD CREEK HAS BEEN AN ALL TOO FREQUENT OCCURRENCE IN YEARS PAST, AND THE BOARD BELIEVES IT HAS AN OBLIGATION TO ALLEVIATE THE PROBLEM.

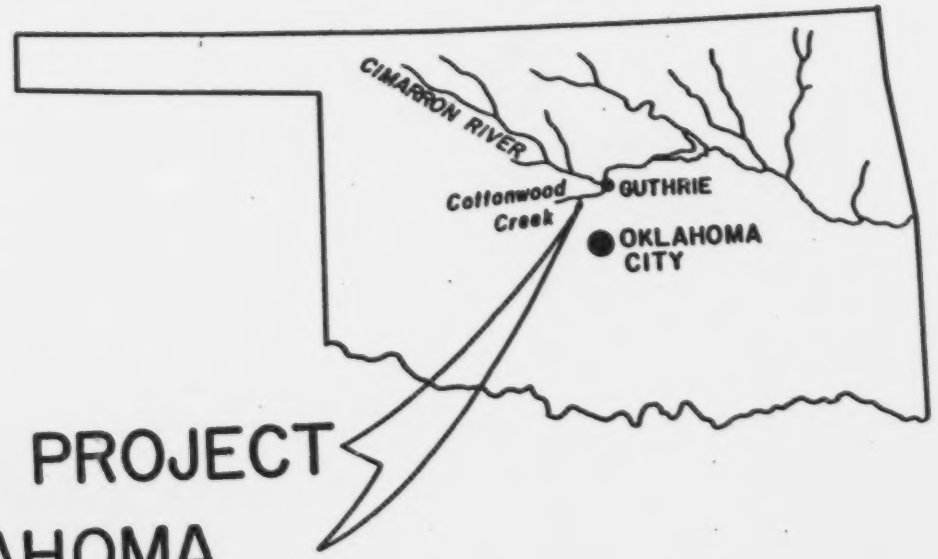
IN CONCLUSION, THE OKLAHOMA WATER RESOURCES BOARD WOULD LIKE TO SEE THE SEWARD PROJECT RECEIVE CONGRESSIONAL AUTHORIZATION AS SOON AS POSSIBLE SO THAT FURTHER DETAILED PLANNING WORK MAY BE CONDUCTED BY THE BUREAU. THEREFORE, THE BOARD HEREBY STATES ITS FULL AND COMPLETE SUPPORT FOR EARLY PASSAGE OF SB 2098.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

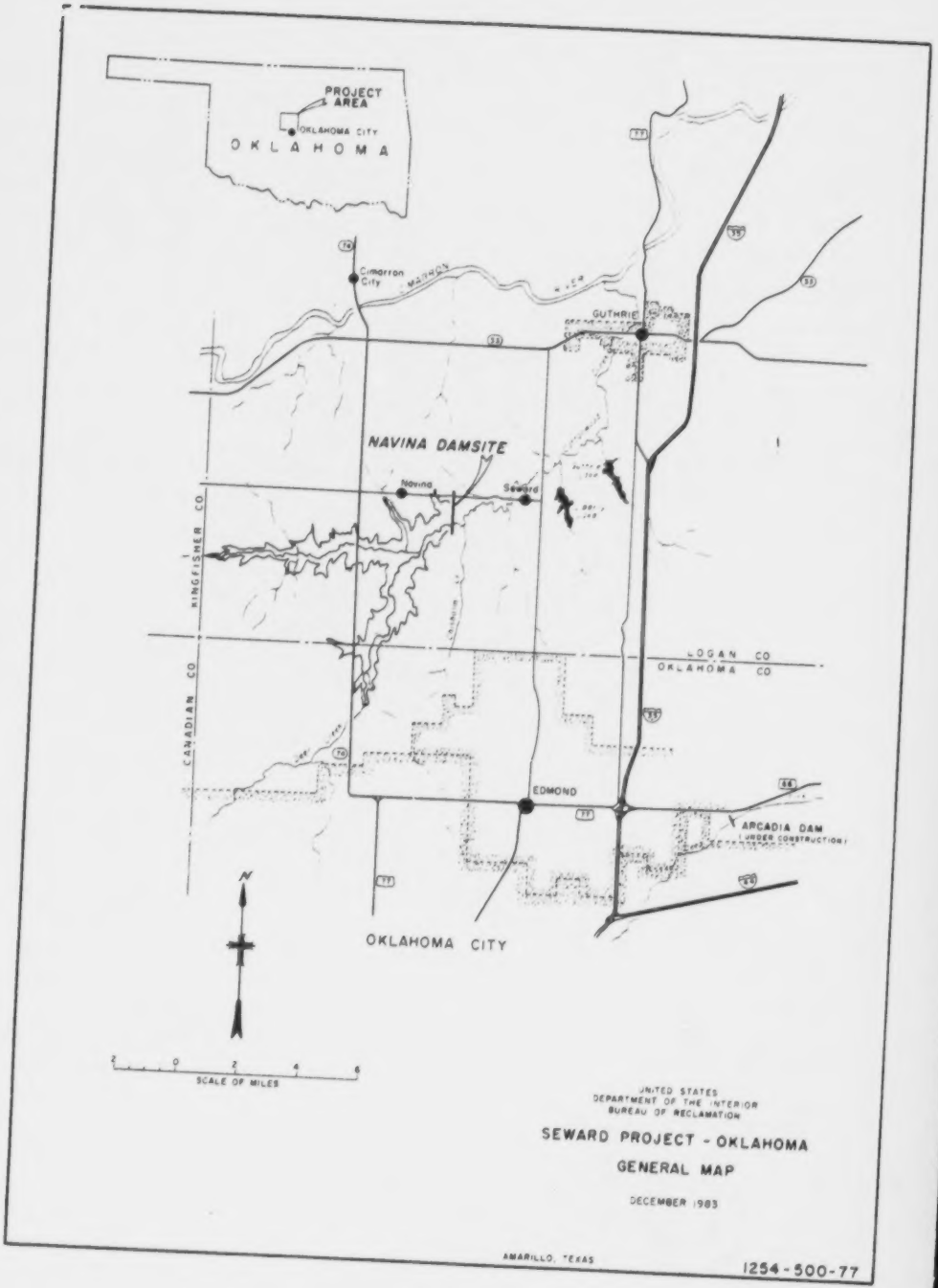
SOUTHWEST REGION

PLANNING INFORMATION
REPORT

DECEMBER 1983



SEWARD PROJECT
OKLAHOMA


PROJECT AREA
OKLAHOMA CITY
OKLAHOMA
Cimarron City
GUTHRIE
NAVINA DAMSITE
Navina
Seward
KINGFISHER CO
CANADIAN CO
LOGAN CO
OKLAHOMA CO
EDMOND
ARCADIA DAM
(UNDER CONSTRUCTION)
OKLAHOMA CITY
N
2 0 2 4 6
SCALE OF MILES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
SEWARD PROJECT - OKLAHOMA
GENERAL MAP
DECEMBER 1983
AMARILLO, TEXAS
1254-500-77

RESOURCE

One of the remaining local surface water sources proposed for development in the Oklahoma Comprehensive Water Plan is Cottonwood Creek. The Seward Project appraisal investigation, completed by the Bureau of Reclamation (Reclamation) in 1975, indicated that a dam and reservoir on Cottonwood Creek would be a practical source of water to help satisfy water needs in the central Oklahoma area. Seward reservoir was also identified as a potential key facility for the development of a regional water system proposed by the Association of Central Oklahoma Governments in 1975.

PREFERRED PLAN

Several alternative plan concepts were identified and evaluated during the study. The Navina damsite on Cottonwood Creek, upstream of its confluence with Chisholm Creek, was subsequently adopted as the preferred alternative for more detailed study. The reservoir with a conservation capacity of 111,846 acre-feet would provide an estimated annual yield of 23,750 acre-feet for municipal and industrial (M&I) use. At the top of conservation storage, the reservoir would have a surface area of about 6,971 acres and a shoreline of about 76 miles. The reservoir would inundate 10.2 miles of Cottonwood Creek and 18.3 miles of Deer Creek.

Flood control, based on benefits assigned by the Corps of Engineers (Corps) and Reclamation cost studies, was determined not to be economically feasible at this time. Therefore, no flood control costs were included in this plan. However, flooding is recognized as a major problem and concern to the local area and will be considered further in any future studies. The OWRB has expressed a willingness to cost share to the extent that flood control would be economically feasible.

If Navina reservoir were constructed to meet M&I water needs, it could also be used to meet some of the recreation needs of the central Oklahoma area. In accordance with plans developed as part of this investigation, a total of 2,490 acres surrounding the reservoir could be utilized to provide 335 camping sites, 711 picnic sites, 2 swimming areas and related facilities, 25 boat launching lanes, 8 miles of hiking trails, 166 acres of group play areas, and 20 miles of sightseeing and access roads. The reservoir would be stocked with game fish, and it is tentatively contemplated that hunting areas could be established.

The negative environmental effects of project development could be lessened through mitigation measures. Stream habitat lost to inundation by the reservoir could be mitigated by improving the value of the stream below the dam. This could be done by developing a program for maintenance of downstream flows. Other habitat losses, such as bottomland timber, upland timber, cropland, and fields, could be mitigated through the purchase and preservation of additional lands adjacent to the project boundary. Other project lands not specifically developed for recreation purposes could also be controlled and managed for the benefit of wildlife.

INFORMATION REQUEST

We wish to coordinate and exchange information with publics that have experience or knowledge related to the proposed project. If you have information you believe should be considered or opinions regarding any aspects of this study, we invite you to share them with us by contacting either:

Mr. Andy O. Peck
Oklahoma Representative
Bureau of Reclamation
Suite 560
50 Penn Place
Oklahoma, City, Oklahoma 73118

(405) 231-4515
FTS 736-4515

(or)

Mr. Gerald Wright
Regional Planning officer
Bureau of Reclamation
U.S. Department of the Interior
714 South Tyler, Suite 201
Amarillo, Texas 79101

(806) 378-5465
FTS 735-5465

LOCATION

The Seward Project is located in central Oklahoma just north of the Oklahoma City metropolitan area in Logan County. The proposed Navina damsite is located on Cottonwood Creek and would create a reservoir extending upstream in parts of Logan and Oklahoma Counties. Cottonwood Creek is a tributary to the Cimarron River which in turn flows into the Arkansas River.

STUDY PURPOSE

The Seward Project feasibility investigation was initiated in 1977, following favorable findings of an appraisal investigation completed in 1974. The purpose of these investigations was to study the water and related land resources of the Cottonwood Creek basin in Logan, Kingfisher, Canadian, and Oklahoma Counties in central Oklahoma and to formulate plans for the development of those resources to meet identified needs in the study area. Both investigations have had strong State and local government support, due to the recognized needs for additional water supplies, flood protection, and recreation opportunities in the central Oklahoma area.

NEEDS

The six central Oklahoma counties--Canadian, Cleveland, Logan, Oklahoma, McClain, and Pottawatomie--are located in a water-deficient area of the State. The capability of local surface and ground water resources to meet the region's present and projected needs is limited by both quantity and quality deficiences. Development of these local resources is rapidly approaching the practicable limits. Oklahoma City, by far the largest water supplier in the region, has long depended on water imported from outside the region. Several satellite communities also depend solely or partially on that supply through purchase agreements with Oklahoma City. The other communities in the central Oklahoma area depend on local surface or ground water sources, or some combination of the two, for their present water supplies.

The six-county area is currently experiencing a rapid growth in population, accompanied by dramatic increases in housing construction, business and industrial activity, and demands for public services, including water supplies. This rapid growth is expected to continue, with the current population of 861,000 projected to increase to 1.1 million by the year 2000 and to 1.7 million by the year 2040. According to the Oklahoma Comprehensive Water Plan, recently published by the Oklahoma Water Resources Board (OWRB), the present six-county annual water use of about 228,900 acre-feet for all purposes is projected to increase to 436,500 acre-feet by the year 2000 and to 848,600 acre-feet by the year 2040. To meet the projected increases in water demand, the Oklahoma Comprehensive Water Plan proposes development of the remaining local surface and ground water resources, water conservation, reuse of reclaimed wastewaters, and, ultimately, importation of additional surplus water from eastern Oklahoma as part of a statewide storage and conveyance system.

The Seward Project has long been included in State, regional, and local development plans; and various central Oklahoma communities and rural water districts have been identified as potential users of the water. Several of these local entities passed resolutions in May 1981 indicating their support for continued planning of the Seward Project as the most feasible source of potable water to meet future needs in central Oklahoma.

In addition to water supply needs, the city of Guthrie has suffered severe losses over the years due to frequent floods on Cottonwood Creek, which bisects the city. The city has sought feasible solutions to the problem for several decades. Several nonstructural measures implemented by the city provide limited reductions in monetary damages, but the threat of potentially disastrous floods remains. City officials and engineers have long viewed the potential Seward Project as an essential element in any feasible flood protection project that could substantially reduce the damages from major floods on Cottonwood Creek.

PERTINENT DATA

Navina Dam and Reservoir

Elevations (feet)	
Crest of dam	1,028.87
Maximum water surface	1,023.00
Top of conservation storage	1,017.59
Top of dead pool	977.69
Streambed	962.00
Allocations (acre-feet)	
Surcharge	42,132
Conservation storage	111,846
Dead storage	1,208
Sediment (50 year)	7,400
Surface areas (acre)	
Maximum water surface	8,586
Top of conservation storage	6,971
Right-of-way (acre)	
Dam and reservoir	13,820
Recreation	1,290
Mitigation	480

Spillway-gated overflow	
Number and size (feet)	12 (36.09 by 24.28)
Capacity (cubic feet per second [ft^3/s])	236,200
Crest elevation	994.62
Outlet works	
Municipal and industrial	
Number and size (feet)	1 (2.25 by 2.25)
Capacity (ft^3/s)	75
River outlet works	
Number and size (feet)	2 (4 by 4)
Capacity (ft^3/s)	1,000
Yield (acre-feet per year)	
With treatment plant discharge	34,620
Without treatment plant discharge	23,750
Length of dam crest (feet)	6,214
Shoreline length (miles)	76

Senator NICKLES. Thank you. Mr. Secrest, did you have any additional comments?

Mr. SECREST. I don't have any comments, other than I would like to—in defense of Jim, some of the staff people and the board—answer the gentleman awhile ago, about the statewide 2040 plan. That was a mandate of the Oklahoma Legislature, as I understand it, instructing the board to plan to that date, so that's the reason of the year 2040 plan in the Oklahoma water comprehensive plan.

Senator NICKLES. Do you feel like that, as far as that 2040 date, that it needed to be that far out, or do you think 20 or 25 years would have been closer to——

Mr. SECREST. Well, that's debatable; but when you look at the average project time to build, as you mentioned awhile ago, is about 22 years in Oklahoma, from planning stage to completion, why, 2040 may not be an unreasonable time.

Senator NICKLES. Well, here again, I'm thinking out loud, but 2040 is 50-some years, you look back 50 years ago in Oklahoma, we've changed a lot. I would echo the comments of both Mr. Scott and Mr. Schirf, as far as some of that long-range planning, I think has benefited Oklahoma City, that cost, $60 million would—I don't know what it would cost right now, but it would be a multiple of that.

Had the city fathers of Oklahoma City not made some long-range planning, quite frankly, there's a lot of communities—you wouldn't have the agreement between Guthrie and Oklahoma City right now, if you weren't getting some of the water out of Atoka County, those things just wouldn't happen, so that was some forethought.

Quite frankly, it means that the water bills are able to be quite a bit cheaper now than what they would have been if we had to crash through some type of an expensive reservoir pipeline system today. So I think it's important to look ahead, like I said, I think maybe I would question that far out in years, but I think we do need to be looking in the years, 15 to 20 years from now, because we are talking about the life of these projects, many of them.

Now, maybe if we scoped the projects down, and went to more individual community-type reservoirs, which were more common in years past and have supplied a lot of communities with their principal source of power or supply, those aren't quite as long-range in design.

A couple of questions. Mr. Barnett or Mr. Secrest either one, several of our panelists have disputed substantially, a lot of the figures that were used concerning need.

There has been a lot of allegations concerning recreation, I mentioned recreation is not the principal objective, and neither is flood control. I would concur with the statement, Mr. Barnett, that if we proceed with the project that we ought to take in additional systems, if possible, and try and alleviate a lot of the flood control problem that we have; but, again, probably the reservoir wouldn't stand on flood control alone.

Many people have said, well, you know, you shouldn't pay that much money. You can move the city of Guthrie or you can certainly move those people in the flood plain. I would concur that would be more economically feasible than just building this reservoir for

flood control purposes alone, so the real issue is water supply, and we got into somewhat of a dispute.

I would appreciate it, and if you don't have time now, for the record, if you would analyze some of the statements that were made, particularly concerning the ACOG statement. We have a representative, possibly he's still here, from ACOG, but to look at some of these projections that were made and be able to justify—not, again, just for the year 2040, but let's look at the year 2000 and see what kind of water supply situation that we're going to have in the year 2000.

Does this reservoir need to be built to satisfy a normal growth projection for central Oklahoma City, say, to cover the year 2000 or the year 2005.

Mr. BARNETT. I'd be happy to do that, Senator. In th estudy that I'm going to hand in today we've tried to document that, and we've tried to take a conservative approach. As you're familiar with from when you were in the State Senate, the Employment Security Commission is very conservative in that their population projections, and we tried to use those projections, as opposed to some that are often more optimistic by the substate planning district, and various others.

Even using the most conservative projections, as far as population growth and water growth, there is no question in our mind, as the responsible agency for the State, that this water supply is needed and that it needs to be built.

Senator NICKLES. Would you look a the information that ACOG evidentially had and try to answer those? One of the purposes of this hearing, that I hope—like I said, there's been a lot of facts, or statements that were made as facts, and some of them are very contradictory.

If nothing else, if we could resolve some of those contradictions that would help me, as far as trying to decide the direction that we should go, and also, I think, it would help a lot of other people. We've heard from a lot of concerned citizens who have stated that they would be willing to go for this project if they were truly convinced of the need, and I respect that. A lot of people are making that statement, even though they still might have to leave their land or something, and that's something to be commended on their part.

So I want to make sure we do get the facts out, and, to me, that's probably the most important result of this hearing. It probably won't be concluded by this hearing, but we will have aired a lot of this concerns and also some of the facts, and maybe we can clarify some of the misconceptions. Quite possibly you've already done that in your study.

Mr. BARNETT. What I can promise you is, that we'll go through the records of the hearing as soon as it's made available and try to respond to each concern that's expressed on an item-by-item basis, if you would find that helpful.

Senator NICKLES. Well, I'm not trying to put a bunch of work on you, but I would like to have some of these questions answered.

Mr. BARNETT. We would not see that as work, it would be work, but it would be work that we think is in the best interest of the people of the State.

Senator NICKLES. Yes, Mr. Scott.

Mr. SCOTT. If I could just make one suggestion, I don't think any of us, anybody that's been on this panel, I don't believe really oppose that lake in principle, I don't. It's just a lousy lake, if it had good things about it, I wouldn't have any objection at all.

It is not deep, it's going to evaporate, it's going to have tremendous evaporation on it, if you look at the shorelines of that lake there is nothing practical about it. For the money you're going to spend you're not going to get anything. If that was a nice, big, round lake, 60 feet deep, I would be a hundred percent for it, because it would do exactly what we're talking about, it would give us a great big reservoir of water that would serve a whole big area around there, every kind of way.

It's not like Overholser, it's not like Hefner, it's not that kind of lake, it's a little dribble going up a stream, and another little creek going up this way, and it's going to evaporate, just like my pond does every summer, and all this water that people think they're going to get out of it for $300 million they're not going to get. I'm not opposed to building a lake there, I'm opposed to building that one.

Senator NICKLES. I might just mention, Mr. Scott you mention, and some other people say, well, these creeks are very small and there's very little water in them, but one of the purposes of a reservoir is to save the water.

You have floods, but without a reservoir you're not able to accumulate, you're not able to use, you're not able to take advantage of that flood water.

There would be some flood control aspects, you would be able to pick up some from those quicker rains, that are really, righ now, for the most part lost, and be able to conserve and utilize that water.

Also, on the growth issue, and there have been some discrepancies as far as population growths and whether or not the need is there, I can tell you, without water you won't have the growth, people will not move, an industry will not move into a community if that community is on their third year of water rationing, and you're not able to provide water for the community, they're going to locate in a different area.

The growth projections that are made, maybe optimistically, by whatever group or whatever city, will not happen if there isn't energy, if there isn't labor, and if there isn't water, you need all these for the economy to have any type of expansion.

Mr. SCOTT. But shouldn't those communities provide their own? Shouldn't Guthrie go out and build their own lake, shouldn't Edmond go ahead and build their own lake, just like Oklahoma City did? I'm all for Oklahoma City, I'm a hundred percent for what they did, they did the advanced planning, and they did tremendous planning ahead, and the foresight that were looking at the problems coming up, and they solved their own.

Now, why can't Guthrie and Yukon and those cities vote bond issues and buy land and build their own reservoirs and take care of their own water problems, because I just don't think that's a good one.

Senator NICKLES. Well, I appreciate your statement, and quite frankly, maybe if you reduce the scale and the scope of the reservoirs that may be an alternative, that will have to be considered, it is possible. Mr. Barnett, I've got a few other people and I'm not going to be able to get them on if I don't bring them up right now.

I appreciate your coming back, and I also appreciate the work that Rick Smith and others have done on the Water Resources Board. We've had a lot of statements totally against the Water Resources Board or against the Bureau of Reclamation, and others; but I appreciate your willingness to assist us in getting information, and we'll be getting back to you with some questions that we would like to have clarified before we put out the hearing records, so if you would give us a quick response to those as quick as possible, we would appreciate it. Thank you very much.

Before I have our last panelist up—I'll invite them up, Dan Stinnett, U.S. Fish and Wildlife Service; Ron Suttles, Oklahoma Department of Wildlife Conservation, from Oklahoma City; Franklin Walters, Lee Ziegelgruber. I apologize for any damage I did to your good name.

While we still have some people here, and this is going to be over at 4 o'clock, I want to make a statement now. When we had the sign-up sheet back there, and it stated everyone would receive a hearing record, I'm not sure exactly how many are scheduled to be printed, I'll check into that.

I may write everybody a letter that did sign in, and ask if you want a record, maybe I'll have something enclosed and you could send it back. I don't know exactly how thick this record will be, but it will be fairly extensive, and again, I don't want to have them all printed up and what not, if people aren't going to use them.

If people are really interested in it, I certainly want you to have a copy, but I don't know that everybody really, in this room, would like to have a copy. So I may—if you get a letter from me that says, if you want a copy, please send a note back Mr. Stinnett.

STATEMENT OF DAN STINNETT, BIOLOGIST, TULSA FIELD OFFICE DIVISION, ECOLOGICAL SERVICES, U.S. FISH AND WILDLIFE SERVICE

Mr. STINNETT. I'll make this quick. I'm a biologist from the Tulsa Field Office Division, Ecological Services, U.S. Fish and Wildlife Service. The Wildlife Coordination Act provides for service participation in the development and assessment of water development projects presented by the Bureau of Reclamation.

We have been involved in the planning, specifically, for the Navina Reservoir, when we were notified of the feasibility study in 1977. We have provided planning assistance in meetings in the form of planning aid memoranda.

Our assessment of fish and wildlife impacts associated with reservoir construction, recommendation for mitigation of unavoidable habitat losses, and opportunities for improvement of fish and wildlife sources, as a project feature, is contained in our final report on fish and wildlife resources in the Seward project, which is service submitted to the Bureau of Reclamation in March 1980.

In that report, Senator, various fish and wildlife proposals were presented. Plan "D" represented a proposal for the maintenance and improvement of the downstream portion of Cottonwood Creek, through minimum flow releases and installation of a multilevel outlet inundated by the reservoir.

A reservoir fishery would be established and maintained, along with provisions for a lake level management plan, a reservoir zoning, a clearing plan, and cosntruction of facilities for fisherman use.

Our analysis indicated that, with exception of bottom land, forest, and cropland, the terrestrial habitat losses could be recovered by the roughly 7,000 acres of land purchased and fenced around the permanent pool, to mitigate the loss of bottomland timber, widely recognized as a critical element to the needs of both game and nongame animal species.

Plan "D" proposed a minimum of 480 acres to be purchased and fenced as a downstream corridor, dimensions of the corridor would be 425 feet on either side of Cottonwood Creek, and would extend downstream 4.6 miles. Annual maintenance of the corridor would be required to assure the areas continued function for the life of the project.

The environmental quality plan was also presented and identified in our report as plan "C". This plan would include the same features necessary for development of a reservoir fishery, and the same features to mitigate stream losses, as proposed in plan "D".

Plan "C" goes further, however, in addressing accelerated wildlife management practices on the Cottonwood Creek of the Navina Reservoir. Roughly 3,500 acres of land and water in this area purchased for the project would be managed by an agency, such as the Oklahoma Department of Wildlife Conservation, and could be expected to accelerate favorable habitat conditions for wildlife on land purchased for the reservoir.

With plan "C", the downsteam corridor was expanded to take in those lands within that same width, 425 feet on either side of the Cottonwood Creek, into the Cimarron River. Such plan could appeal to outdoor enthusiasts and perpetuate a critical habitat element.

In recognition of Federal responsibility to assure that fish, wildlife, and their habitats are given equal consideration in project planning, the fish and wildlife service believes, at a minimum, the elements of Plan "D" should be included as part of Navina Reservoir project.

Further recognition of the overriding demand of central Oklahoma residents, for both consumptive and nonconsumptive wildlife uses, would be fulfilled with the adoption of elements as presented in our plan "C". That concludes a statement that I would like to present.

Briefly, I think there may be some confusion, Senator, as to recreation, as is shown in the report of the Bureau of Reclamation, and fish and wildlife. As you know, fish and wildlife, as a project purpose, is separate from recreation, and I believe there is a lot of confusion as to people going in here and hunting in these recreation areas.

We are not proposing the recreation areas; in fact, when we wrote our report, we were unaware of the extensiveness of some of these recreation areas; and because of the picnicking and so on, that is planned, there might be some conflict between fish and wildlife, and the recreation areas.

Therefore, I think it's something we need to take a look at, and I should hope that there is an understanding there that we have not proposed the recreation areas as fish and wildlife type areas, but rather, we have looked at the habitats for fish and wildlife, with and without the project, and felt that with reservoir construction, not considering these recreation areas, for the most part, except for bottomland, timber, and cropland, those habitats would be inundated, could be, and the surrounding land purchased for the reservoir returned to a native condition.

Senator NICKLES. Thank you. Mr. Suttles.

STATEMENT OF RON SUTTLES, OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION

Mr. SUTTLES. Ron Suttles, Oklahoma Department of Wildlife Conservation. The department is a State agency responsible for the protection, management, and enhancement of Oklahoma's fish and wildlife resources. Our participation throughout the Seward, now Navina, project planning process has been with these responsibilities foremost in our minds.

Our position is that if—and I highlight that "if", not for or against—if Congress decides to build the project, we are responsible to sportsmen of this State, to ensure that maximum consideration is given to fish and wildlife resources, and related activities, based upon previous correspondence and input provided to the Bureau of Reclamation on the Navina project, since the early seventies.

Fish and wildlife services' report to Fish and Wildlife Resources, dated March 1980, represents the most current plans and recommendations for ensuring that environmental quality, and fish and wildlife needs and objectives are provided for by the project.

That report, which was developed with the cooperation and concurrence of this department, provides an analysis of existing and future habitat conditions, both with and without a project, and contains various management plans addressing environmental quality features, and mitigation of habitat loss.

The project evaluations address fish and wildlife habitat, fishing and hunting opportunities, open space for other wildlife habitat, fishing and hunting opportunities, open space for other wildlife related, activities, preservation of unique habitats and protection of endangered plants, animals, and habitats.

Given these considerations, we believe that of the four alternatives addressed in this report, plan "C" is the one which provides the most comprehensive incorporation of fish and wildlife values into the project. This plan currently provides for approximately 2,150 acres of land for wildlife management, and 1,350 acres for fisheries management in the Cottonwood Creek arm of the reservoir, in addition to a 4.7-mile, 1,550-acre downstream corridor to provide for streamside habitat.

Considerable emphasis has been given to recreation in a project report, and in comments presented today. I would point out that even if existing opportunities for recreation, primarily reservoir-based recreation, are insufficient to accommodate local demands, there is an even greater lack of local opportunity for hunting and stream fishing.

Our interest in establishing a wildlife management area within the project boundaries reflects our responsibility to sportmen to pursue opportunities like Navina and at the same time assure that the area will be large enough to effectively manage for game and nongame purposes.

I would underscore the Fish and Wildlife Service's statement regarding the anticipated impact of nonwildlife recreation and population growth, upon utilization of the proposed wildlife management area, and for hunting and fishing on a continuing basis.

I would also point out that this report also contains several recommended project features that we support. These include funds for the establishment and maintenance of a reservoir fishery, downstream releases, multilevel outlet and scheduled releases, selective clearing in the reservoir's main body, wildlife habitat mitigation, including funds to establish, develop, protect, and manage the mitigation area, fencing and reservoir zoning. This completes my statement.

Senator NICKLES. OK. Thank you very much. Mr. Walters.

STATEMENT OF FRANKLIN WALTERS

Mr. WALTERS. Thank you. My name is Franklin Walters, I represent the several hundreds of citizens of Guthrie, OK, who are members of, and have signed the petition supporting the work of the select committee of the general citizens of Guthrie, OK, investigating the flood problem.

In regards to the issue of the Seward project, it is the position of the select committee of the general citizens committee of Guthrie, OK, that any project that contributes to the actual control of flooding in Guthrie, OK, is looked upon with favor.

We do not favor, however, any project which might delay or diminish immediate attention to Guthrie's flood problem, or which might create a false sense of security for the people of Guthrie who are, in many cases, already lulled into a state of complacency, ignoring the real and continuing threat of even more life-threatening and disastrous flooding than ever experienced in the history of this city.

We support, wholeheartedly, orderly progress and planning for the future of our citizenry in Logan County, and all our neighbors roundabout, but our primary concern is that we do not continue to talk, and talk, and talk, making promises that cannot be kept and ignoring problems of more pressing importance. People are dying in Guthrie's floods.

Flooding in Guthrie must be controlled, and false solutions must be disspelled. What supports truth, honesty, justice, the protection and security of our children and neighbors, we support, the rest we stand resolutely against, especially the talk, the endless talking, which is literally talking our citizenry to death.

We have heard about this project for years, we have heard about relief of Guthrie's flood problem for years, we are told that this project will take 10 years to accomplish, even if it is decided to accomplish it.

If this project can stop flooding in Guthrie, so be it, wonderful, we"ll support it, but if it can't stop flooding in Guthrie, we feel like there is a more pressing problem that is literally taking the lives of our citizens, and it has to be addressed, and it has to be addressed now, and we're awfully tired of all this talk. Thank you.

Senator NICKLES. Thank you. Mr. Ziegelgruber.

STATEMENT OF LEE ZIEGELGRUBER

Mr. ZIEGELGRUBER. Ziegelgruber, it's a good German name and it's pronounced exactly how it's spelled. I feel inadequately prepared after listening to all these experts. I live down on Waterloo and May Avenue, and I will be inundated by the construction of this lake.

If it would serve a purpose of providing a good probable water supply for people, then I would be willing to give up my share and what I have there. I visualize from the maps, and from everything else, and the things that many other people have said, a long shoreline lake, very, very shallow.

The reason the lakes of McGee Creek and Atoka are in McGee Creek and Atoka, and southeast Oklahoma, is because of the heavy rainfall, approximately 60 inches a year in this area. When I say unreliable, you had 11 of it in one month. OK, that 11, we haven't had any since, let's put it that way.

Deer Creek, without the effluent from the sewer disposal plants that are located on it right now, would be dry. Deer Creek did not freeze up during the last cold spell because either the effluent, or runoff, or salt, or hot water or something. The Deep Fork at Arcadia froze up solid. There's something in the water that didn't let it freeze up, that's the—neither here nor there, but I've lived there now for 13 years, I was born on that corner of that county. I went fishing with my granddad in Deer Creek when we caught blue channelcat "that long" then.

I came back in 1971, and I walked down to the creek on land that I owned, and all I saw was green scum and a smell. Much progress has been made by the sewer disposal people to clean up the water.

I've asked water resources people to come down and check the water in the creek, and they deliberately avoid it until after a flood, and then they would come out and check the water.

One time one man checked it, this water won't support life, period, it won't support a fish, it won't even support a turtle. This is what you're going to wind up with if you move the effluent water from the disposal plants to Chisholm Creek. Of course, they're going to fuss about the smell and everything else, but the average rainfall won't support this lake, I don't believe, and I think that there will be many periods of time, 3 to 4, 5 months at a time, when all you're going to have is a mud flat.

His fish aren't going to live in that mudflat, and no one's going to get any water out of it. Then you're going to have a period of

flood, and you're going to have lots of water, but it's not going to be—again, I don't have the statistics to back this up, I do know what the average rainfall is.

I've sat there and live there, I've seen it rain 4 inches and the runoff is gone in 24 hours, I've seen it rain 2 inches and the water is gone in 12 hours. It takes it 3 hours to get to Oklahoma City where I live.

There's an asphalt watershed that has to be contended with, and somebody brought up the contamination problem of this asphalt watershed, that they put, I don't know how many tons of salt on the streets the other day, that came down the creek. There's this type of contaminant that will settle at the bottom of the lake and it will kill the fish, no doubt about that.

Again, cost consciousness, I spent 30 years in the Air Force, I've seen budgets prepared, I've seen cost overruns, I've seen airplanes built that started out at $1 million and wound up at $200 million apiece. I see a proposal here for $270 million, I visualize at least $500 million before it's over with, I'm talking about everybody surveyed for the next 10 years, and the cost of the land.

We have not noticed, addressed the relocation of existing water distribution systems that are in this area, the relocation of pipelines, and oil and gas lines that are in area, the relocation of communication systems that are in this area, all these things will have to be relocated at a great expense, and whether or not its worth this or not, I don't know.

Could this money better be spent in making a lake large enough to provide enough water to do some good? Again, like Mr. Scott said, this is just a drop in the bucket.

Senator NICKLES. OK. I'm going to have to wrap up.

Mr. ZIEGELGRUBER. I'm done anyway, and thank you for your time.

Senator NICKLES. Thank you. We're going to have to scoot. I want to ask the Fish and Wildlife people, and I appreciate you both coming up. Talking about the wildlife conservation and the wildlife needs, both of you mentioned, two or three or 4,000 acres, I think, in different proposals.

You've probably also heard me or others mention that it's quite possible or desirable that if we were to proceed that there would be less land condemned, which would reduce that "other land for other uses" requirement, whether it be recreation or whether it would be fish and wildlife.

You mentioned hatcheries, and all kinds of things—you didn't mention hatcheries?

Mr. STINNETT. Sorry.

Senator NICKLES. Well, somebody did. Stocking and other areas, you were talking about downstream for several miles, and so forth, well, you probably wouldn't see that much land involved, so you'd see some reductions.

Would you be opposed to the project if the project was built but was a lot tighter on the amount of land that was acquired?

Mr. STINNETT. Senator, I think first of all, the land that we are looking at, that 3,500 acres, is land that the Bureau of Reclamation said is going to be required for the project.

Senator NICKLES. Well, let's just say it wasn't.

Mr. STINNETT. You're talking about building houses right down, then, to the edge of the flood pool?

Senator NICKLES. Let's say you didn't have this.

Mr. STINNETT. No, you would not be able to, then, fulfill the requirements of what the Fish and Wildlife Coordination Act asks the federal agencies to do, equally consider fish and wildlife in the planning of a project, to mitigate for losses as a result of Federal expenditures; and that is the very reason why the downstream corridor is as is, showing bottom land timber cannot be mitigated on reservoir land, as we calculate, and so then it would have to be a decision that, I believe, would require somebody other than probably the Fish and Wildlife Service to make, if you understand what I'm saying.

Senator NICKLES. Thank you. Did you have something to say?

Mr. SUTTLES. If the project lands were reduced to any great extent at all, the Wildlife Department would have to give serious consideration to its endorsement of a wildlife and management area up there.

The key point being, that, as I mentioned in my statement, that size has something to do with the worth of an area for wildlife management. If you get an area much smaller than you have right now, it's not going to have the same benefits from it, as you would from a larger area.

Senator NICKLES. I want to thank you for your time, all of you, and especially those who have been patiently sitting on these chairs for several hours. There's a great deal of interest in Guthrie, and that's really the reason why we had this in Guthrie, because it affects more people here.

Just quick statement concerning the flood control aspects this is not going to solve your flood control problem. If I was a person who was living in that flood plain I would be looking to expect another flood or find another place to live, if possible, because this is not a panacea to your problem, and I don't want you to think it is, or I don't want to give anybody the mistaken impression that it is.

I can understand what you're saying, you hear a lot of talk but you don't see a lot of action, that happens quite often. But I think it would help, I think it would help substantially.

I don't think if they carried the lake at full capacity it would help; but even that wouldn't solve the problem if you had a big rain like we had last year. You're still going to have significant flooding in that area.

I just make that comment so you and other people won't think, they said they were going to solve the problem and 10 years from now they haven't solved it.

I think we've had some very good input, as I stated initially, that's exactly what this hearing was for, to give this subcommittee an opportunity to evaluate a project that has been in the mill for a long time, has had some expensive evaluation studies, not totally completed as brought out, but there has been a lot of work done on it.

Quite frankly, I think if the project is going to move it's going to have to move in the not too distant future, for it to be feasible. So this hearing today has been very informative to me, and I am ap-

preciative of the homework that many people have done, the concerns that many people have mentioned.

There have been some questions raised that have not been answered today and I think some of those questions need to be answered before really a final resolution of this project can be made, and so we''ll be working with those parties to try and come up with answers to some of the unanswered questions, as soon as possible.

When we do, those of you that have signed in, we'll be communicating with you some of what we found. Also, if you're interested, again, you can receive a copy of the hearing record, and then we'll also keep you advised as to progress or our intentions of moving the bill. It's not my intention at this time to move the bill or make progress on it until some of these questions are resolved.

If we feel like some of those questions are adequately resolved before we move, we will notify you by letter if you signed in on that sheet. Again, I realize there's a lot of people in this room divided on this question, it's a sensitive issue for a lot of people, I understand.

That's the reason why we had the hearing, and your comments and suggestions have been very helpful to me. I want to thank you, and also I want to thank the persons who assisted us in this hearing, and particularly, the commander of the American Legion Post 58, Sam Ragland, for his cooperation, and for those who helped set up the chairs and everything else, made it possible.

The city of Guthrie as well, we appreciate your input, its been very helpful. Also, to our colleagues from Washington, DC, we appreciate your help as well. We'll adjourn this meeting.

[Whereupon, the hearing was adjourned.]

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

Kingfisher, Okla
January 13, 1984

HONORABLE Don Nickles,

We wish to add our testimony in opposition to the proposed Seward Reservoir project. We attended the hearing in Guthrie January 10th and felt that the testimony presented clearly indicated that the project is not feasable, not cost-effective, or not needed.

We have been doing custom combining, hay baling and wheat, alfalfa farming on the area for the past 27 years. At present we are renting 580 acres of crop land and 80 acres of

irrigated prairie hay, and 150 acres of pasture lands. All of the operation will be totally lost with the construction of the reservoir. This will be a serious blow to our farming operation as we cannot replace the acres lost by the same quality acres or if any quality. Pasture land have almost no turn over in this area.

Arthur and Irey Bell Kinder
William Glen and Hannah Kinder

Jan. 18, 1984

Senator Don Nichols
215 Dean A McGee Rm. 820
Okla. City, Ok 73102

Dear Sir.

We wish to go on record as opposing the Seward Reservoir Project. We watched you on the news last night. You were concerned about spending by the military. We are concerned about that also, but we really feel that this particular project is a great misuse of money. We feel that the disadvantages greatly outweigh any advantages. We will be watching to see how this goes. Please consider this carefully.

Sincerely,
Joella Blalack
Jon Blalack

Joella Blalack

RECEIVED 26-84
JAN 2 3 1984

Dear Senator Nickles

I have heard that the Seward Reservoir project is to include a wildlife area on either or both sides of Cottonwood creek to the Cimarron river. I am definitly opposed to this idea and hope that you will understand that I am an indipendent business man loking out for my own interests. I farm with my son several hundred acres which would be involved.

Yours truly
Alfred Fruendt

Senator Dan Nichols
U. S Senate. Okla.

We all have reasons for being for or against a project some of us are directly effected others have vague reasons of entertainment or selfish interest in development as for the rest and we will be entirely displeased as the proposed project now stands, My parents started our farm before state hood we have raised children, educated them and made responsible Citizens of all who have been connected with our farm. I can see the need for water in the future, people will have to realize that other sources are available but at a good price. when the outside interest and users come face to face with the problem and see this water problem

as one they must place in a high priority along with food and must not depend on placing the problem on other people and their property. Everybody want to solve this problem but they want everyone to share the solution with them. We have made it this far 67 years by our own boot straps. to have it all confiscated. our minual rights our home, our land and our rights to contribute to what good we can do in this country places us in opposition to this project We sincerely hope every part will be weighed and the displacement of people, home & lives will be the main consideration

Ethridge & Irma Berg
Route 4 Box 412
Guthrie Okla 73044

The Navina Reservoir Project is seriously affecting the lives of our family. This statement represents the Nakvinda estate. We are not for this project and will do anything in our power to stop it. This farm land was first farmed by our grandfather Frank Nakvinda who was an 89er. It was passed down to my father Henry Nakvinda onnow to 3 sisters 2 brother and my self. I myself and one brother farm 3 quarters of land which is involved in this project very successfuly. With a high yeild of wheat around 18 thousand bushels, we pasture 250 head of steers each winter. The alfalfa yeilds around 65 tons. Oil production is also very high as each quarter has a oil well on it. We have 6 families making an adequate income from this land. I as a farmer stand very firm against this issue as farming has been an Industry in my family Oince the early 1900's. I would hope our State Government will stop wasting money on this project. How can our state justify building such a project when our children's education is being questioned at the State level each day.

Ron Nakvinda
Rt 1 180
Cashion OK. 73016
433-2343

The Honorable Senator
Don Nickles

1-10-84

Summary of Navina Reservoir

Agriculture is the leading industry in this area.

6,800 acres of Excelent Bottom Land
4,000 " of upland Cropland
4,400 " of Pasture Land
all minerals + Production

The bottom land is used mostly for production of alfalfa + other hay crops and small grains. It is very fertile productive soil.

Flood Control

The cotton wood creek has not flooded since the flood water-retarding structures have been built.

Deer Creek has no such detention dams and does the most damage at the flood stage. The Soil Conservation Service watershed originally had 58 such structures and about 20 were completed.

Recreation

According to the appraisal Report 12-74 by the Bureau of Reclamation this is of the utmost interest and of the highest need for the Okla. City area. "Page 15"

Farming is also an industry and we need to have some consideration also.

W. G. Kinney
R#2 Box 338 A
Guthrie Okla 73044

1126 N.W. 79
Oklahoma City Okla.
January 21, 1984

Hon Don Nickles

RECEIVED JAN 24 1984

Dear Sir:

We were unable to attend the recent hearing in Guthrie concerning the proposed Lovell Reservoir. We are opposed to this project for the following reasons and request that this letter be included in the record:

(1) Thousands of acres of land, much of it bottom land, which presently produces food for man or animals, would be inundated - a dangerous waste in an ever more crowded world.

(2) Neighboring towns have adequate water supplies - local leaders are being intimidated, by those whose jobs depend on such projects, to push for this on the grounds of future need. Oklahoma already has a vast number of man-made lakes.

(3) The reservoir would be ineffective for flood control and would cost much more than other, more effective means.

(4) It is hard to believe that $270. million of tax-payers money would be spent on such a boon-doggle in a time of enormous national debt and inadequate state funds.

Sincerely yours,

Kirk Johnson and Marcia Johnson

Gentlemen:

I would like to make a statement about the proposed Seward Lake. My dad and I are farmers in the area, farming these quarters: SE 1/4 7-15-3, SW 1/4 7-15-3, NE 1/4 18-15-3, SW 1/4 18-15-3, and SE 1/4 13-15-4. We own none of this farmland, however we have been farming this ground since 1972. We rent this ground from Richard + Beula Cornforth, Arlene Morgan, Bruce Morgan, Kent Polly, and Kate Miller. There is 350 cultivated acres of very good bottom ground involved that is currently in wheat. To lose this ground would be a big loss to both of our farming operations. My wife and myself would probably be forced out of the farming business since over half of our income is produced in this area.

Now we hear that this lake is needed for the projected shortage of water in this area in the upcoming years. We think that there will never be any more land and that this is some of the best farmland found anywhere in the state. We also feel as taxpayers that the current economy and the National Debt would not justify spending $270 million for a lake that would not control flooding and would not solve the needs of central Oklahoma's water needs, but for a few years at the most.

Sincerely,

Mr & Mrs. William D. Kordis

January 10, 1983

We are retired and not physically able to attend the hearing in Guthrie today. We do wish to make a statement in opposition to the proposed Seward Reservoir Project.

We own two quarters in Seward township - N½ of section 7 and SE¼ of section 12. The farm in section 12 is all under cultivation and is leased to area farmers. The project takes at least ⅓ of this farm, including the stock well, for recreation. The farm in section 7 has some crop land under cultivation, pasture land with stock pond, and a good stand of timber on the creek all the way across the place. The project takes all the farm except the house and barn. The timber is scheduled to be cleared.

I have lived and farmed in this area all my life and have no plans for liquidating my farm business. I expect to have the income from these farms for our lifetime. They are then to become the property of our daughter who is a war widow with two children.

We know from the past studies that the project is not feasable for flood control. We feel that the water needs for the area have been adequately provided. We are very much opposed to giving up our land for recreation (as most of our land is designated on the map.)

We would hope that the project be discontinued for all time so that we could live in peace on the land where we have worked and spent most of our lives.
Thank you. Nellie Green

R. W. Gilkey

Route #2
Guthrie Ok 73044

The Hon Don Nickles
U.S. Senator
Washington D.C.

Dear Sir:

I Am writing this letter as a concerned citizen, tax payer and land owner, whose farm would be partially covered by Seward Reservoir, Logan Co. Okla.

In 1897 + 98 one of the most disastrous floods ever to hit Guthrie Okla. occurred. My parents, who lived where Navina Community now is, crossed the Cotton wood bridge in Guthrie in a wagon and team. And a fellow on horseback crossed after them when the bridge went out. For All these years since why hasn't Guthrie done something about these floods?!! It would be a Control problem which is inherently Guthries. It would be cheaper and easier on the Government + taxpayers to move people out of the slums and that so called "Notorious Alley" than wait for another flood to occur which they knew would come periodically. These floods are regularly recurrent.

Agriculture is the leading industry in Cotton wood and Deer Creek bottoms and in Logan Co. Our livlihood depends on it. The U.S. Dept. of Interiors Bureau of Reclamation always stresses recreation + tourism. Over

(Cover)

Railroad as a nation depends on Agriculture, not tourism + recreation!!

Compare the cost against benefits of Seward Reservoir!!!

Sincerely

Lucie Berg-Anderson

Guthrie, AK 99603

BY Box 414

73044

P.S. According to statistics nearly 2000 A. of valuable bottom farm land along Cottonwood and Bear Creek, Also approximately 4000 A. of grassland including Minerals, would be taken out of the proposed reservoir area built. Also 1400 A. would be taken from the tax rolls which in turn would harm schools and towns.

Again, I say "Compare the cost against benefits of Seward Reservoir"!!!

RECEIVED

RECEIVED JAN 2 0 1934

Jan. 17, '84

Dear Sen Nickles,

I would like to go on record as being opposed to the Garza / Lower Red River. After staying all day at the meeting in Guthrie, I am convinced that the Project is to everyone's disadvantage. It is my suggestion that you either let Guthrie + Edmond work out their own water problems locally or that you consult more closely with the FARMERS locally who depend on the weather and land for their existence each year. They alone really know the area and what the water problems are.

Thank You for Your Time.

Sincerely,

Mrs James A Talbot
Rt 1 Box 48
Cashion Okla 73016

The following statements are for the Public Hearing on Seward Project, OK conducted at Guthrie, Ok. January 10-1984 by the Honorable Don Nickles, Senator from Oklahoma

My name is Sara R. Davis. I live at 2730 NW 34, Oklahoma City. My husband and I own a few acres of up-land grass but this has no bearing on [redacted] the project. Approximately ten years ago at a public meeting, Mr Joe Hall, Bureau of Reclamation, said he was recommending that a feasibility study be made so everyone in the area would know once and for all whether Seward Reservoir was really needed or not. The study would take about two years Mr Hall said. At the time and living in the city, and knowing how dependent we are on water, I thought Mr Halls recommendation was reasonable. Five years past - no study - at public meetings, virtually no one spoke for the project except Guthrie and Edmond elected officials. It was concluded by the Bureau in 1981

that Seward would not be needed for a long time. After nearly ten years of silence, it doesn't seem quite "Cricket" for surrounding communities to now say suddenly they need the Project for their water supply. As an Oklahoma tax payer, I am concerned about the Oklahoma Water Resources Board contracting for water storage that may never be used (or only partly used). Oklahoma may well be paying ten times (or $4.25 million based on estimate of $170 million ÷ 40 years) each year more than we are now paying for unused water in the Sardis (Clayton) reservoir. Based on the facts that I have read and observed during the past ten years, I recommend that [redacted] Senate Bill 2098 be withdrawn from further consideration by Senator Nickles' committee and the Congress.

Sara R. Davis

Jan, 11, 1984

I wish to go on record as opposing the Seward Project (Marina Reservoir). I attended the hearing this date in Guthrie and listened as the members of my family - and many others gave testimony in opposition to this project.

We have just returned home from the hearing. I am somewhat baffled as to why that many intelligent people would -

Take time to study,

Make the effort to congregate and spend a day discussing the pros and cons of a lake of -

Drabtful feasibility. That would not solve flooding problems, and would fill with water of dubious quality greatly augmented by the flow from storm sewers and streets of the metropolitan watershed.

Then propose to

Construct a dam with lake.

Then dig a canal around one end to dispose of flood water.

And then dig a canal around the other end to dispose of effluent from sewage treatment plants - - - - ???

Thank you,

Richard D. Carnforth
Rt 4, Box 441
Guthrie, Okla
73044

RECEIVED JAN 2 1984

Senator Don Nickles
215 Dean A McGee
Room 820
Oklahoma City, Okla 73102

I am writing you in regard to the United States Department of Interior Water and Power Resources Service, Arcadia Lake Project

Since the time we have been redistricted of course you first campaigned for and received support from your conservative record and individuals have had nothing but positive feelings about you.

We feel the proposed lake is a bad thing. First place all of the money it will take to build, then all of the money to buy all of the land and homes, just for recreation. That can not be responding for recreational purposes. The country is going down the drain if we do not stop it. Besides riding for the recall, Lake Arcadia must be. Most important all the families have been and down the Cotton Wood and Deer Creek that will lose it becomes second third and fourth generation families living on these farms it has all been taken away.

It won't stop the three flooding. It will not make a drinking water supply because the Oklahoma City Sewage Disposal and the Bethany Disposal Plants are draining into it.

It won't make a dent in the recreation to be because of these reasons. Also it will be a very shallow lake in the most part so the Board of the Government with

the National debt that it has spend the millions it would take to build this boat so a few people would have a place to run their boat on.

My father, myself and now my son and grandson have farmed some of this land that our folks homes teached. It will be the end of the line.

For this time to me sure medicine Government spending to get our National Debt reduced. & fiscal years have been Conservative Senator.

The simple way you to kill kill this project and any of the Liberal spending, critic to such as this.

Thanking you we are

F. W. Dow
Home Farm

1-19-84

RECEIVED JAN 2 0 1984

Senator Don Nickles
215 Dean A.McGee
Room 820
Oklahoma City,Okla.73102

I am writing you in regards to the United States Department of Interior Water and Power Resources Service Seward Lake Project.

First let me say we have been an admirer of yours since you first campaigned for Senator.We are pleased with your conservative record and wish we had more in public offices like you.

We feel this proposed lake is a bad thing.In the first place all of the money it will take to build,then all of the money to buy all of the good farms and homes,just for recreation.Wecan not keep spending for recreational purposes.

This country is going down the drainif we do not stop this spending for the so called liberal good times that this lake would be.Most important is all the families we know up and down the Cottonwood and Deer Creekthat will lose their homes;some third and fourth generation famlies are living on these farms that will go for what.

It won't stop Guthrie from flooding. It cannot make a drinking water supply because the Oklahoma City Sewage disposal Plant and the Bethany Disposal Plant are dumping into it.

It won't make a Sportman and recreation lake because of the above facts. Also it will be a very shallow lake in the most part so why should the Government with National debt that it has spend millions that it would take to build this just so a few people would have a place to take their boats.

My grandfather,father ,myself and my son have farmed some of this land that our folks have homsteaded. It will be the end of the line.

In these times we need less Government spending to get the National debt reduced.I feel that you have been a conservative Senator.

We implore you to help kill this project and other liberal spe nding projects such as this.

Thanking you,we are

Charles W. Perry
RR#1 Box 65
Edmond Okla. 73034

Cashion, Oklahoma
January 25, 1984

The Honorable Don Nickles
713 Hart Building
Washington, D.C. 20510

We wish to add our testimony in opposition to the proposed Seward Reservoir.

We have farmed in this productive valley for many years. We have five or six cuttings of high quality alfalfa hay and a wheat crop every year. We raise cattle on this farm and there are small barns on it. We have improved this farm by clearing timber and building a small pond for cattle water. It would be a considerable hardship to our family to lose this forver. It seems very wrong to consider taking fertile land out of production. There must be a better way to conserve water!

Sincerely,

Arthur Bridal

Arthur Bridal

Bette Bridal

Bette Bridal

Rt. 2, Box 315
Guthrie, OK 73044

January 9, 1984

NAVINA LAKE STATEMENT

Power Commission Members:

This will be mostly an emotional appeal against the proposed lake. I have lived thirty-three years in the area and had planned to live the rest of my life there, property taxes permitting.

It's very hard to give up land you lived on and worked your whole life.

Even though this lake is supposed to be for water supply I feel the main underlying reason is recreation.

My wife and I have both been working extra jobs to pay for the land, so please don't destroy what we have accomplished.

Sincerely,

David Cornforth

David Cornforth

Wauneeta Cornforth

Wauneeta Cornforth

OKLAHOMA CIVIL DEFENSE
SEQUOYAH-WILL ROGERS BUILDINGS
POST OFFICE BOX 53365
OKLAHOMA CITY, OKLAHOMA 73152
405/521-2481

GEORGE NIGH
Governor

NORRIS PRICE
State Director

January 9, 1984

SEWARD PROJECT COMMENT: State Civil Defense

Oklahoma Civil Defense's primary concern with the Cottonwood Creek watershed, as it relates to the Seward Project, is with administration with disaster relief funds for repeated flooding events which have affected citizens of Guthrie. Between 1940 and 1959, 26 major flooding events occurred, and 86 minor events were recorded. Since 1959, five major floods have occurred at large enough a scale to require State disaster declaration, plus other numerous events which seriously affected the immediate residents of the Cottonwood Creek "elbow" area, but were not widespread enough through the county to trigger a formal declaration of need.

Each of these events require various levels of mobilization of surrounding resources of adjoining counties and state agencies, including the National Guard and the State Highway Patrol.

In the view of the concerns of the State Civil Defense, flood mitigation benefits of the Seward Project is a major answer to the cry, "Something must be done about Cottonwood Creek". All the other values of the promising project are secondary to the reduction of flood related displacement and danger to life. The cost benefit analysis is quite favorable in this respect, considering the enormous costs over the last three decades in activating the range of resources required in both major and minor events.

SUMMARY

State Civil Defense strongly recommends and supports the prompt expeditious implementation of the Navina Dam of the Seward Project to protect lives and property and avoid the unnecessary use of vital emergency resources which would be released for use in other scenes that are not as benefited by mitigation such as the Seward Project offers.

cc: Dan Ward, Guthrie City Manager
Jim Dickson, Guthrie C. D. Director

To The Honorable Don Nickles Re: Seward Lake Project

I am a concerned citizen. My cattle and wheat farm in Kingfisher County, just two and one half miles south of Cashion, Okla. the Kingfisher-Logan county line. From the map sketch showing the proposed lake project, it will take approximately half of my land and all of the Cottonwood Creek that crosses it. This leaves the remaining land divided, completely destroying it's value as a cattle and wheat farm industry.

The second point I am concerned about is: All of my land is leased with two producing oil wells and two producing gas wells which are close to the creek. There are numerous pipe lines and oil field roads criss-crossing my property for which right of way has been granted.

The third concern I have is the sentimental value this land has for me, my children, and grandchildren. My husband's grandfather bought this farm in 1893 with only a cottonwood tree for a roof and a prairie trail to travel on. Four generations have made it their home. We have instilled in our very bones the love of the land, the respect for nature, the preservation of wild life, and indeed the pioneer spirit for THIS IS OUR HERITAGE.

I understand some one hundred and fifty farm and ranch are involved in this project. If this does go in, I hate to think of the harm it will do to our communitylife, The schools, the Churches, our home town, and all. The land, Its people and their contribution to American life, the whole community, all this goes to make up our American culture. Its value and worth to humanity cannot be measured in a feasibility study.

Thank you,

I remain Katherine Morin - a concerned citizen

Katherine S. Morin

Jan 10,1984

Dear Senator Nickles,
My sister and I own 200 acres of farm land which is in the proposed Seward Lake Project.

Our Grandfather homesteaded in this area and our Father farm this land. We are opposed to this project. This land has een our family's income for many years. Now our source of income is from this farm, and in addition four other families receive income from crops and resources from this one farm.

Sincerely,

Florence Stidham

Mrs Florence Stidham
204 E 2nd
Edmond, Okla

January 10, 1984

As residents of the Cashion community and Logan County areas, and as United States citizens and taxpayers, we most definitely oppose the proposed building of Seward Lake for the following reasons:

1. The taking of more than 15,000 acres of productive farmland that will be lost to food production forever. Also, the taking of many citizens' lifetime homes.
2. The erroneous idea that this lake will bring flood control. This was proved unfeasible in studies by the Corps of Engineers and the Bureau of Reclaimation since the 1930's.
3. No city or water district "supposedly" wanting to purchase water from this lake has been willing to sign a contract at this date to help pay for the lake.
4. The absurdity of taking acres of Oklahoma farmland when the main reason for building the lake is for RECREATION.
5. The increase in crime, trash, undersirable troublemakers that will inevitably come with this and would be worse because of the proximity to the metropolitan area.
6. The cost of the project. Oklahoma and United States governments do not have the money to waste on this "recreation" project.

Janet Dean Sewards
Warren L. Harman
Linda Harman
Clayton Harman
David E Harman

David Sewards
Bernie E Harman
Jerseni E. Harman
Bonnie Feeney
Sharon L. Garrett
Doyle E. Garrett

PIEDMONT MUNICIPAL AUTHORITY
P. O. Box 144
PIEDMONT, OKLAHOMA 73078

January 5, 1984

The Honorable Don Nickles
713 Hart Building
Washington, D. C. 20510

RE: Seward (Navina) Reservoir

Dear Senator Nickles:

The Town of Piedmont has experienced a tremendous growth on the water system during the past eight years.

The water system began operation in May of 1975 with 275 users. At the end of 1983, our users have increased to 990. The 1980 census revealed an increase in population of 686% over the 1970 census. At our present rate of growth, the town water supply should last approximately five to six years.

The Town of Piedmont would therefore request that every measure be taken to expedite the Seward (Navina) Reservoir for the purpose of a water supply lake.

Should you feel that the Town of Piedmont could assist in any way, please do not hesitate to contact me.

Respectively yours,

Terry L Walker

Terry L. Walker
Town Administrator

TLW:sag

cc: Sen. David Boren; Mickey Edwards, M. C.;
Wes Watkins, M. C.; Gov. George Nigh;
Bureau of Reclamation; O.W.R.B.

Senator Don Nickles
713 Hart Building
Washington D.C. 20510

Dated 1/6/84

RE. Seward (Navina) Reservoir

Dear Senator Nickles

I have purchased a three acre tract of land in the S.E/4 Sec. 19-15N-3W for a home site. However, I have recently discovered that this property would be covered by approximately ten to twelve feet of water if the Seward Lake is built.

I have lived in the Deer Creek community for twenty-three years and have seen many floods along the Cottonwood Creek and Deer Creek bottoms. The floods progressively get more intense as developement over their water sheds increase. I have seen crops along both flood plains washed away resulating in large financial lost for farmers. The damage incured to farm equipment trying to salvage crops is also very high, even in years of very mild flooding.

The proposed Seward Lake project in my opinion would be an ideal location for a very needed water supply and I for one support this project completely.

If I can be of any assistance in the accomplishment of this lake please feel free to contact me.

Terry L Walker

cc: Micky Edwards
OWRB
Bureau of Reclamation
David L Boren
Henry Bellmon

Rt 1 Box 64
Edmond Okla. 73034
(405) 341-3638

Sierra Club
Oklahoma Chapter
Marvin Baker
Water Task Force Chair
300 Hal Muldrow #227
Norman, Oklahoma 73069
405-329-0808 or 325-5325

Statement of the Oklahoma Chapter, Sierra Club, on the proposal for construction of a multipurpose reservoir at the Seward (Navina) site, Logan County, Oklahoma

Presented at the Hearing convened by the Honorable Don Nickles, member, United States Senate, at Guthrie, Oklahoma, 10 January 1984

I am Marvin Baker, Chair of the Water Task Force of the Oklahoma Chapter, Sierra Club. My residential address is 300 Hal Muldrow Drive, Apt. 227, Norman, Oklahoma 73069. The statement below represents the position of the Oklahoma Chapter of the Sierra Club in regard to the proposed Seward Reservoir.

The Sierra Club is approaching its centennial as a national conservation organization and throughout its long history it has actively been concerned with rational resource management and policy. The proper management of our national water resources has been a major interest from its earliest years. The concern of the Club has ranged from the protection of wild places threatened with destruction by inappropriate water projects to concerns about poor planning and economic waste of scarce dollars on projects that never live up the promise of their bureaucratic and chamber of commerce boosters.

It is the position of the Oklahoma Chapter of the Sierra Club that the Seward Project, as proposed, is a poor investment for the taxpayers and should not be built. We base this conclusion on three points:

1. The outrageously high cost to justify a relatively minor flood damage problem in Guthrie. This is a problem which should--in accordance with long standing federal flood management policy--be handled by largely local resources at a tiny fraction of the cost of this project. It is interesting to note that the Bureau of Reclamation came to the same conclusion in its July 1981 concluding report on the Project.

2. Questionable water quality. According to research studies conducted in recent years for the Association of Central Oklahoma Governments (ACOG) under Environmental Protection Agency 208 Water Quality Management Grants, the future urban development in the upper basin of Cottonwood Creek almost guarantees that water collecting in the proposed reservoir will have to be elaborately and expensively treated to make it usable for domestic purposes. The water quality problems will come from both point and non-point sources and can only be prevented if Oklahoma City would institute vigorous measures to lower the pollutant loading from both types of sources in the years ahead. The experience of the Sierra Club is that the leadership of Oklahoma City is extremely resistant to any suggestion they carry out water pollution measures beyond the bare minimum required by existing state and federal regulation and law. The Sierra Club extends its sympathies to any community that finds itself living downhill from Oklahoma City!

3. Realistic water supply demand in central Oklahoma is not sufficient to justify such a project for many years if ever even assuming the water quality problems could be solved. The project is duplicative of existing water supply extensions being created at Arcadia Reservoir and McGee Creek Reservoir, among others. Given the growing national will to encourage the elimination of current water waste in municipal and industrial usage and to see that water is priced at its true market value, we are likely to see a significant lessening of per capita demand for water in the years ahead. The attractiveness of this project is in direct proportion to the extent it would be paid for by somebody else. If the cost were to be paid entirely by the taxpayers of central Oklahoma I promise you we would quickly find far cheaper alternatives!

All of the above leads us in the Sierra Club to conclude that it is only prudent to roll the blue prints up and place them on the dusty shelf alongside those other federal boondoggles: the Supersonic Transport (SST) and the Clinch River Breeder Reactor.

Let us turn our attention to solving the flood damage problems in Butler by readily available non-structural means including flood plain management and search for lower cost means of providing the quality water that may be required by a few communities in the region in the years ahead.

Thank you.

Marvin Baker

Cashion, Oklahoma 73016
January 10, 1984

The Honorable Don Nickles (Senator)
713 Hart Building
Washington, D. C. 20510

Dear Sir:

The following statement pertinent to the Navina Water Project is submitted in response to your Field Representative, Clinton Key.

I was born and raised on Chisholm Creek and my wife on the Cottonwood Creek. We still own the land, farm it plus other land we acquired. We are strongly opposed to this being introduced again. How many times do we have to go through this?

If this project was to eleviate flooding or had a definite plan behind it , other than a place for the city people to play and fish, our attitude would be different. Past history will show, Guthrie, couldn't help themselves unless someone did it all and paid the bills. Reference their Bond Elections for water supply and etc.

This will not eliminate flooding down river and will create more flooding up river due to head water that never before was there. For some strange reason the Bureau of Reclamation doesn't want to talk about it this.

I would like for you to picture this in realty. Oklahoma City and Bethany to the south dumping sewer effluent into DeerCreek and it flows into Cottonwood Creek. The City of Edmond dumping into Chisholm Creek and all flow into Cottonwood near Seward. All this rendering the water undrinkable for livestock, let alone humans. We found out the hard way when our farm pond ran dry one summer, and now you all want just one more thing. Our property for a lake.

I urge you to take a hard look at this project before things go to far. There are Oil Lines, Oil Wells, Newly constructed O.G.&E. electric line, New Homes, and various other structures that aren't shown in the 1981 Bureau of Reclamation Report.

Once again let me urge you to take a GOOD LOOK at the Navina Water Project and put a stop to it at ONCE.

Sincerely,

Raymond J. Kinney

Raymond J. Kinney
Route 1, Box 40
Cashion, Oklahoma 73016

cc: Senator David Boren

RECEIVED JAN 2 3 1984

Route 2, Box 386
Guthrie, OK 73044
January 20, 1984

Senator Don Nickles
215 Dean A. McGee, Room 820
Oklahoma City, OK 73102

The Honorable Don Nickles:

I have submitted one written statement previously, concerning the construction of the proposed Seward Reservoir. It has come to my attention that the Fish & Wildlife Department would like to have 375 feet on either side of Cottonwood Creek to the Cimarron River, for a green belt or wild life area.

It is very hard for me to consider that they could do this since that, we as land owners pay taxes and maintain the area adjacent to the Cottonwood banks.

It is also very puzzling for them to get this without any cost on their part when we have to buy the land whether it be in the creek bed or prime farm land.

Also, we have done extensive work along the creek to keep it free of log jams. The City of Guthrie now has a great log jam and seems to not know how to correct the problem. My dad has also spent much time and money to eliminate a neck on the Cottonwood, thus making the channel straight so that the flow of water could be faster to eliminate the greater possibility of flooding. The location is in NE¼ 36-16-3 West. We spent in the neighborhood of $10,000 for dozer expenses to complete this project.

This project of the Seward Reservoir would be a large mistake if it did not correct the severe flooding problems which we are now encountering, due to the urban sprawl of Oklahoma City and Edmond.

I appreciate the opportunity to make my comments known.

Yours truly,

Ralph Fruendt

Ralph Fruendt

Testimony by Ralph Fruendt concerning construction of a Seward or Navina Reservoir.

I am concerned with numerous problems which this lake would create. A. Do we really need to sacrifice so much land to get effective flood control. B. Would the quality of the water be satisfactory for human consumption. C. I have irrigation rights to Cottonwood Creek water and if the water would become more contaminated with the release of effluents from the Oklahoma City sewer treatment center, there seems to be a great possibility that the water would be no good for irrigation purposes.

A. I can agree that we need protection from the severe floods, one of which we have just experienced this last fall. I live 3/4 mile from the Cottonwood Creek and farm land along on both sides of Cottonwood for a mile. We have extensive damage to fences and crops as well. We have experienced severe erosion on 10 acres of the land I rent from my father. There are several holes where you could cover up a good size car without digging it any deeper. This field was growing winter wheat. We plan to slope the holes in and sprig it to burmuda grass this spring.

As you are aware of we expect this flooding situation to become more acute as the development of urban areas continues at a rapid pace.

It seems to me that a more logical way to get the flood control we need, would be to build the smaller flood detention reservoirs as was proposed in the late 60's and early 70's. They do a great job of allowing the water to be released in a manageable way.

B. Trying to build a reservoir in this locality seems to me very risky with the influx of more people all the time. The problems of the proper disposal of solid waste material is one thing I would be concerned with. Also, we are not able to discover new land to farm to take the place of the land that would be taken out of production by the Navina Reservoir.

C. From the information that I am able to receive, no allowance has been made for release of good water to irrigate with. Also, I understand that the flow from the Oklahoma City sewer plant will be directed into the stream below the proposed dam site. If this comes to pass the quality of water below the dam could very possibly become unfit to be used for irrigation purposes.

My water permit #73-401, dated 12th February, 1974, if for 360 acre feet of water per year.

In 1977, the visual inspection of the water in Cottonwood Creek was foaming with soap suds, as it ran across our low water crossing.

The test that we received is attached.

As is indicated, the water quality was of fair quality then. We are concerned that the quality not deteriorate, so that we may continue to irrigate from the Cottonwood Creek.

For the above stated reasons, I am opposed to the construction of the proposed reservoir.

Ralph Fruendt

Ralph Fruendt
Rt 2, Box 386
Guthrie, OK 73044
405/282-2050

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